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AMSTRAD Computer User



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The Official Amstrad Home Computing Magazine

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AMSTRAD Computer User

The official magazine for all users of Amstrad computers

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PROGRAMMING

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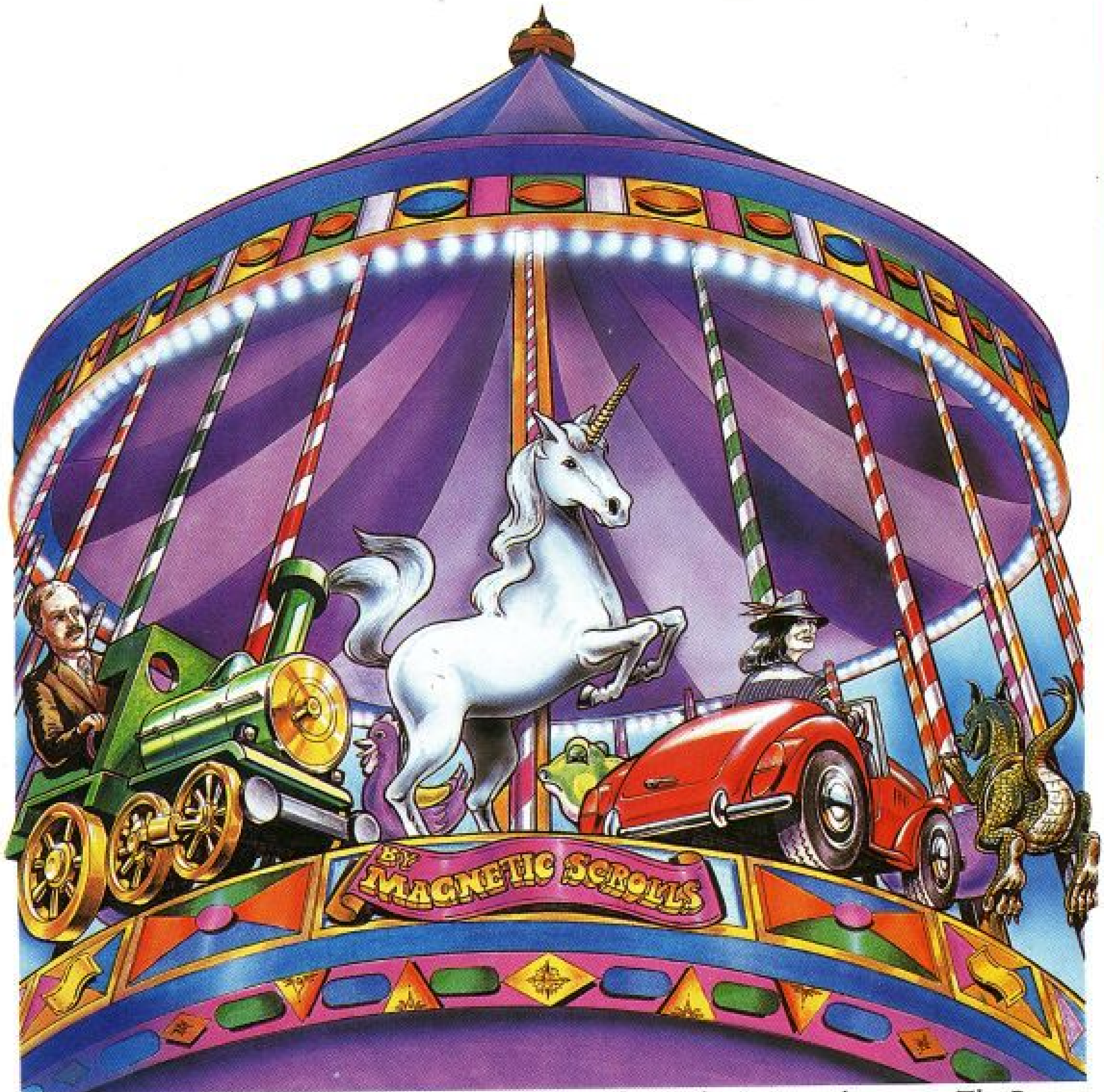
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ABC
63,599
Jan-June 1987

JinXter



Oh No – Not Another Magnetic Scrolls Adventure . . .

Yup. Sorry. The team that gave you *The Pawn* and *The Guild of Thieves* weren't satisfied with international acclaim, the best graphics in the business, and a parser so smart it'll understand every word even *you* type.

"Let's improve the system," they said, "Let's do *even better* graphics," they said. "Let's have a crazy fairground and a cloud that thinks it's a World War II fighter pilot, and a peculiar bloke in a herringbone overcoat, and a railway disaster, and a plot to destroy civilization. Oh yes — let's not forget the World's Strongest Beer. Right?"

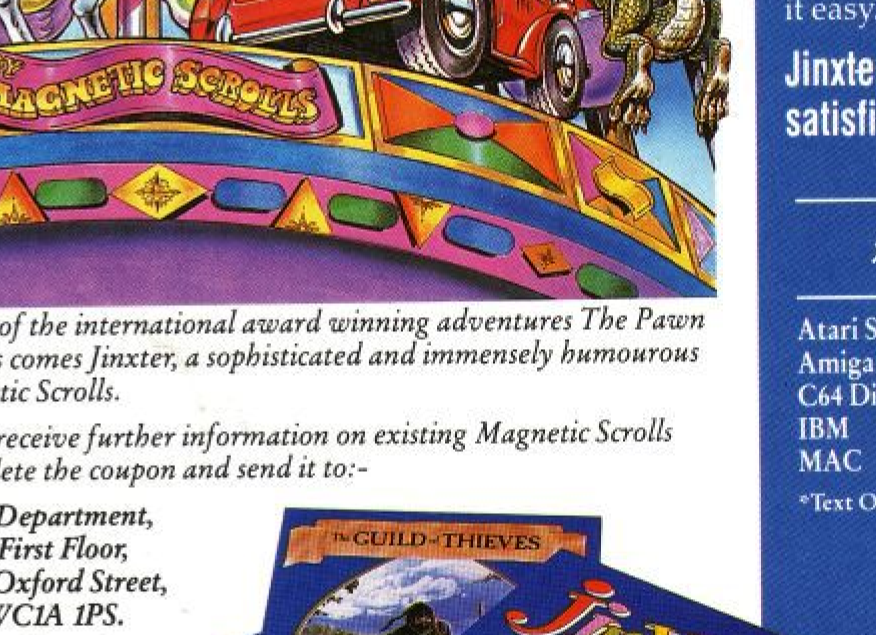
"No," we said, "calm down. Take it easy." But would they listen?

Jinxter. Maybe *now* they'll be satisfied . . .

Following hot on the heels of the international award winning adventures The Pawn and The Guild of Thieves comes Jinxter, a sophisticated and immensely humourous adventure from Magnetic Scrolls.

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ACU

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Magnetic Scrolls

RAINBIRD

NEWS

Computer User



A PPC for HRH

ON a recent tour of the Midlands, The Prince of Wales was presented with an Amstrad PPC by Alan Sugar as part of a charity package.

Amstrad is usually reluctant to support charities, taking the view that there are so many worthy causes that simply administrating which charities to give to makes the whole process a nightmare.

This means that when Amstrad does give to charity it needs to be an especially deserving organisation. Such is the charity BiC (Business in the Community), which aims to give the unemployed in the Midlands a high-tech springboard. Amstrad has donated a number of PC 1640s, a cash grant and some computer training.

PRETTY IN PRINT

QUALITAS is a program which produces a higher than standard quality of output on a dot matrix printer.

It has been a popular product with many Amstrad owners for quite a while now, but there are some unfortunates who have printers which are incapable of producing a high enough resolution to work with it.

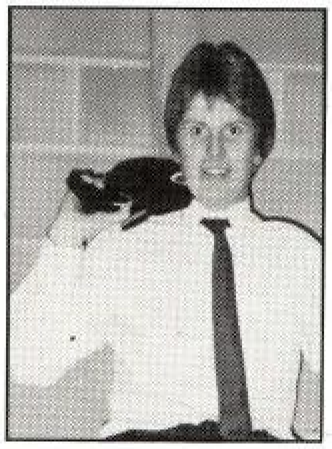
Now more people will be able to use Qualitas, because Qualitas Plus is available. Compatible with Shinwa and Epson double density modes, it makes more use of the 6128's banked ram and has a number of features which are sure to make existing owners want to buy the new software.

Three fonts can now be stored in memory, tables of up to 16 columns can be set in proportional fonts, the font editor has been improved and there is direct access for the top bit, which means that all the characters which appear on the screen can be made to print.

It costs £19.95 on disc or £12.95 on tape: For more details contact Seven Stars on 06284 3445.

The same, but cheaper

A NAME which makes a frequent appearance in the software charts, but otherwise does not make much noise, is that of budget specialist Alternative Software. The company often repackages hits from the past, and Roger Hully, the MD is seen here being bitten by the Piranha



bug as he celebrates the imminent release of that company's older titles for £1.99.

First out will be Trap Door and Popeye, soon to be followed by Rogue Trooper, Strike Force Cobra and Nosferatu.

The show that grows

THE scene is set for what promises to be the most successful Amstrad Computer Show ever in the Great Hall, Alexandra Palace from February 4 to 6.

Response from exhibitors has been so enthusiastic that already extra space has been booked to cater for increased demand for stands.

The show – ninth in the series – will stage a number of exciting product launches for CPC users as well as offering a large selection of bargains.

School Software – famous for its educational packages – will have continuous demonstrations of its Maxi Maths, Maths Mania, Better Spelling, Chemistry, Geography, and Physics programs.

Siren Software is launching three new products for the CPC – Hack-It, a utility program for hackers, Micro Design, a page makeup DTP package, and a mouse interface with software.

In addition to the launches, Siren is promising "tremendous software bargain offers".

One of the biggest attractions will undoubtedly be the Amstrad Theatre – so popular with visitors to past shows that it has been enlarged to meet the demand.

As at previous shows, lots of bargains will be available.

Wash that dirt right outta your head

IT's been a long time coming, but at last there is a way to clean the heads in your Amstrad disc drive. SBS has launched a disc and fluid and for £9.95 you will be able to clean the drive 15 times.

It looks like a standard 3.5in disc but contains a felt-like fabric. You wet the cloth with the "specially formulated cleaning fluid" and run the disc in the drive for 30 seconds.

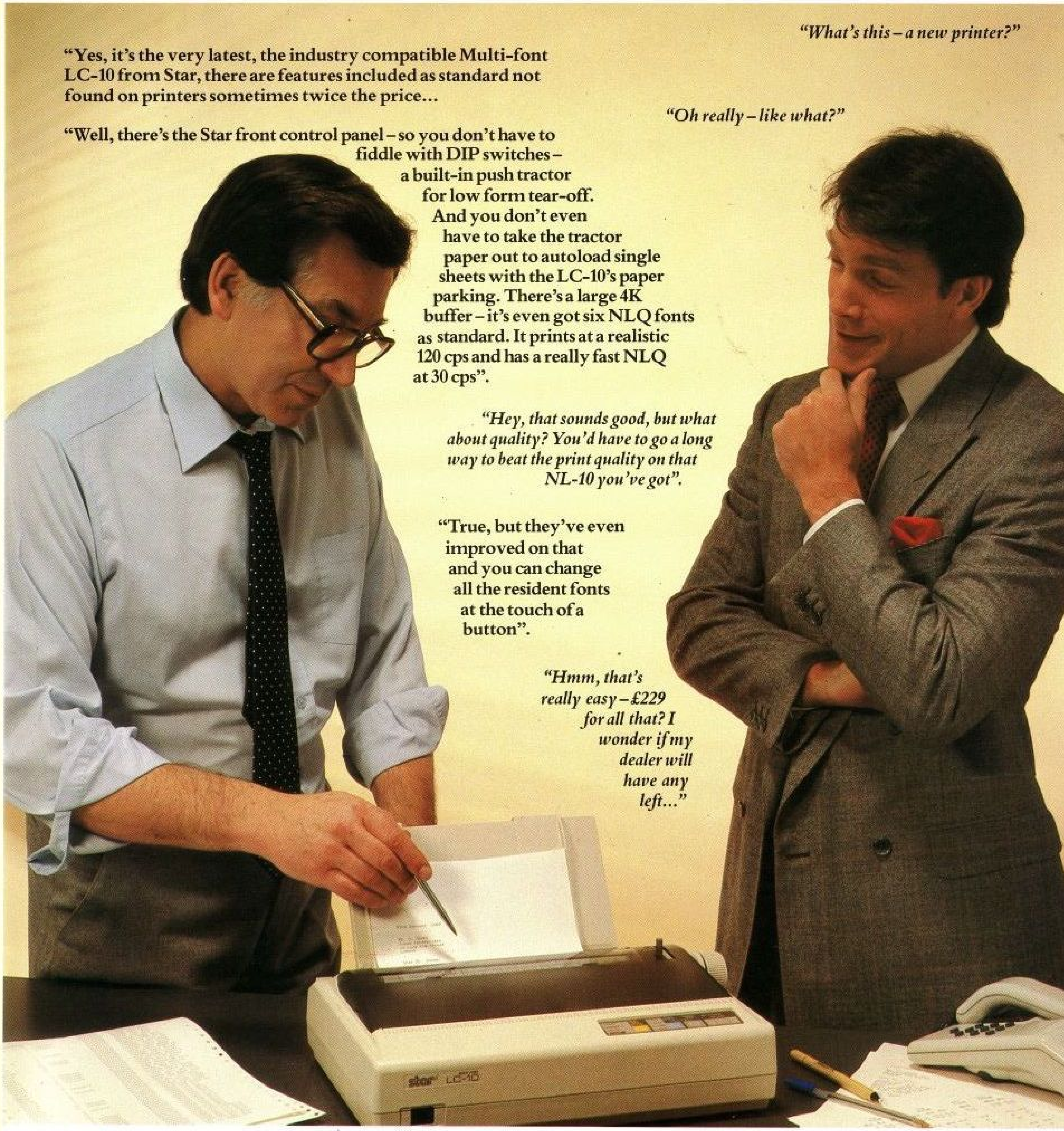
Having not had any trouble with dirty heads for three years, *ACU* doubts the need for this. However, professional cleaning is very expensive and losing data potentially crippling.

GALLUP SOFTWARE CHART

Pos	Move	Title / Publisher / Price	Comment	Last month	Market strength
1	New entry	**Solid Gold** *US Gold* 9.99	The fabby conversion of Gauntlet is the star of the show, with a strong supporting cast in the form of Ace of Aces, Leaderboard, Winter Games and Infiltrator.	NE	100
2	New entry	**Game Set and Match** *Ocean* 12.95	Compilation with a sporting bent. Ten games give over 20 events including Daley Thompson's decathalon, tennis and shooting. Bound to toughen up the wrist muscles and wear out the joystick.	NE	98
3	Down	**Grand Prix Simulator** *Code Masters* 1.99	Still in the chart, this establishes the Oliver twins as Code Masters No1 programming team. Why buy Super Sprint when this is better and cheaper?	2	94
4	Down	**Pro Ski Simulator** *Code Masters* 1.99	It may be the time of year for ski games, but our tame instructor didn't think much of this one. Certainly no piste de resistance.	1	93
5	New entry	**Live Ammo** *Ocean* 9.95	Army Moves, Rambo, Green Berret, Top Gun and The Great Escape are just one of the many offerings in the post-Christmas glut of compilation tapes.	NE	86
6	New entry	**Out Run** *Sega-US Gold* 9.95	The number 1 arcade game doesn't quite come off on the small screen without the moving chair and shaking wheel. Beautiful graphics but unrealistic gameplay makes it an also ran.	NE	81
7	Down	**Dizzy** *Code Masters* 1.99	Cute sprites don't hide the tedium in the Olliver's flickery multi-room jaunt. In a chart which has seen a record eight new entries, this has held up well.	5	75
8	New entry	**Combat School** *Ocean* 8.95	An excellent conversion of the GI game, put together by a large programming team. However in essence it is another track and field joystick crusher.	NE	63
9	Down	**BMX Simulator** *Code Masters* 1.99	One of the best selling Amstrad games ever. Cycling simulator best played with a friend – a good, fun game with a low price. Similar to Grand Prix simulator.	8	61
10	New entry	**Magnificent 7** *Ocean* 9.95	Head over Heels, Cobra, Short Circuit, Frankie goes to Hollywood, Arkanoid, Wizball and The Great Escape make seven, so Yie Ar Kung Fu is thrown in free.	NE	55
11	New entry	**10 Pack** *Gremlin Graphic* 9.99	Last month there were no new compilations in the chart. The Christmas jamboree has changed all that, this bargain bundle is Gremlin's gift.	NE	53
12	Down	**Renegade** *Imagine* 8.95	A game which has been brilliantly programmed by John Brandwood with graphics by Mark Jones, but lacks taste. Horrific and violent. This month's fastest faller.	9	52
13	Down	**Soccer Boss** *Alternative* 1.99	You too can be Captain Bob Maxwell – control the whole first division if you like. No options to buy teams from rock stars though. Simple but absorbing.	6	51
14	New entry	**Match Day II** *Ocean* 8.95	Amazingly accurate football simulation, deserving a much higher place in the chart. This is one which will run, run and run. Then score.	NE	51
15	Down	**Indiana Jones** *US Gold* 9.95	Arcade conversion time again. Competently coded version of the game of the game of the film. I think I'll wait for the T shirt.	7	50
16	Down	**World Class Leaderboard** *US Gold* 9.95	Fresh air, exercise, getting away from it all. All the excuses golfers use to justify their hobby fall flat when it comes to the home computer version. Still it's a good, relaxing game.	4	48
17	Down	**Paperboy** *Elite* 8.95	Hugely popular game which shows that quality is more important than meeting deadlines. No sound, but plenty of thrills and spills. Avoid the road – it's dangerous.	12	48
18	Down	**Joe Blade** *Players* 1.99	Simplistic Mode 1 wander around the prison game. 2D sprites, includes a frustrating juggle-the-letters puzzle to prime a bomb.	3	45
19	New entry	**Elite Collection** *Elite* 14.95	Bomb Jacks I & II, Frank Bruno's Boxing, Commando, Airwolf, Ghosts and Goblins, Battleships and Paperboy look a much better buy than our peddling friend on his own at number 17.	NE	43
20	Non-mover	**Ollie and Lisa** *Firebird* 1.99	What's this doing in the chart? It's been out ages. Still it's a good game and really deserves a chart place, even if it is right at the bottom.	20	43

Non-mover   Up   Down   New entry

"£229 for all that?"



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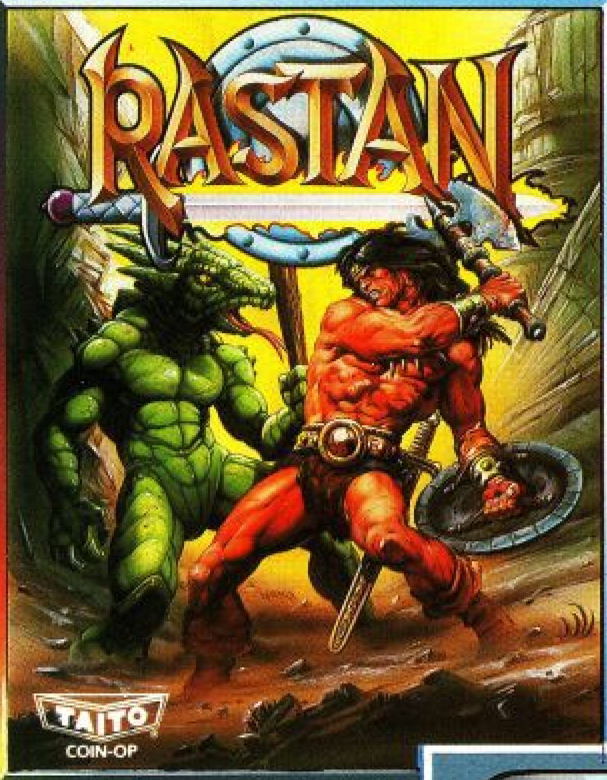
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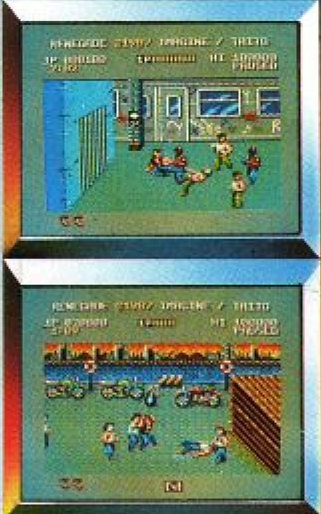
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7.95 ea. 8.95 ea. 8.95 ea.
CASSETTE

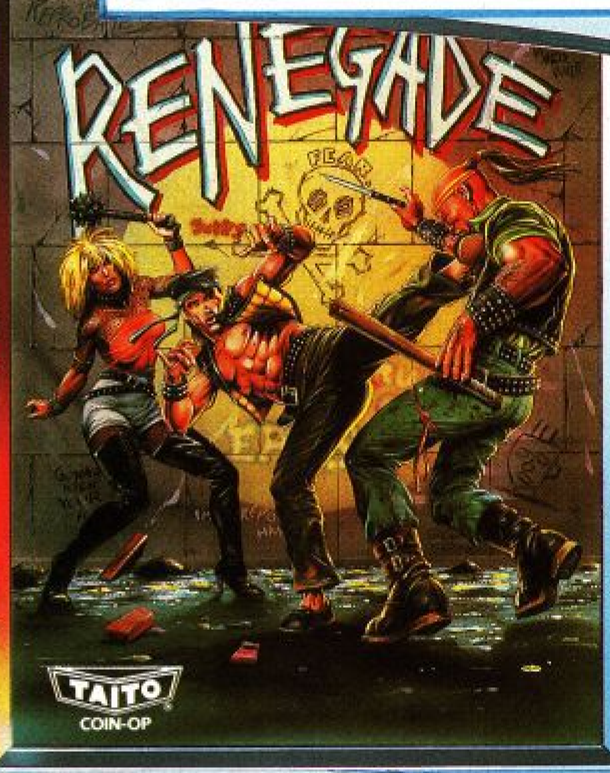
ARC
CHAM





...the Warrior King.
The latest hit coin-op from Taito.
Lands that produce men of legend, dragon slayers, lie in his shadow – guardians of evil fear his fire spewing sword, the axe he weilds as swift as lightning. State of the art programming makes a true simulation of the Arcade hit for your home micro. Enjoy superb graphics and realistic action as RASTAN takes on a world of dangers–magical wizards, fire breathing lions, bats, snakes, skeletons and finally the living dead. Is it more than you can handle?





In the knife-edge world of the vigilante there is no place to rest, no time to think – but look sharp – there is always time to die! From the city subways to the gangland ghettos you will always encounter the disciples of evil whose mission it is to exterminate the only man on earth who dares to throw down the gauntlet in their path – the Renegade. A breathtaking conversion of the arcade hit by Taito now for your home computer. With all the original play features.
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PIONS
VICTORY ROAD
SNK
Having survived the bloodsucking monsters of the first phase, you progress on to the actual Road itself.
This is where the fun really begins. You will meet vampires, two and three headed monsters – the head will fly at you on its own, just when you think you are gaining the upper hand.
Collect icons to build up the firepower necessary to fight off your aggressors.
Action and excitement all the way with this macabre and unusual game; which has that elusive extra something to keep you coming back for more.
..the name of the game
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Not so merry

I HAVE just bought the December issue of *ACU*, and like last December's issue you hardly mention, if at all, that Christmas is upon us.

Whereas I support the fact that you don't appear to exploit Christmas in any way, "A MERRY CHRISTMAS AND HAPPY NEW YEAR" to all your avid supporters would not go amiss.

S.R.McDonald,
Stamford, Lincs.

***LD:** The December issue went on sale in the UK at the beginning of November, and it seemed a bit early to start wishing people Happy Christmas then.*

By the time the magazine gets around the world we only just make Easter in some of the far flung places. Even this did not dissuade the Hairy Hacker from being suitably festive.

Simple stepping stones

I WAS interested in R H Henson's letter (*ACU* January 1988) regarding the relative popularity of word processor software. I have recently changed from Mini Office to Protext, having found the former to have several limitations in the production of a club newsletter.

These are notably in reformatting text to different page widths, printing other than in the centre of the page, and changing print styles in mid-sentence without leaving a six-character gap where the embedded commands were.

I would certainly agree that Mini Office is much easier to learn to use, especially for someone who has never used a word processor before or is not too familiar with computers. In fact I would not recommend Protext for the complete novice.

But once the user comes to grips with Protext, the extra power, flexibility and lack of idiosyncracies more than compensate. As for lack of on-screen help, there has to be a compromise, or there would be no room left for word processing. The Protext Manual is much shorter than War and Peace, and is very well-written and cross-referenced. As for Henson's Law, that surely can only be true of Icon driven software.

David Bozon,
Nottingham.

Book buys

CONCERNING the letter "Calculating in assembly language", (*ACU* January 1988), perhaps the following might be of some help. Two books appear to contain the required information. They are:

- Amstrad whole memory guide (CPC464) by Don Thomasson, published by Melbourne House, ISBN 0-86161-199-3.
- Anatomy of the CPC's (authors not named), published by First Publishing Ltd. ISBN 0948015-462.

Neither is an "official" publication but both appear to fulfil a need. It appears that the memory of all CPC's is sufficiently similar to ensure that the first book is relevant to the 6128 despite its subtitle.

G.A. Doyle,
Wolverhampton, West Midlands.



Club complaint

I REFER to your reply to Mr Mike Southéy under the heading of Disc delay. Frankly, I was disgusted by what appears to be an attitude of "you join the club or do without".

Is it the case that once one has purchased an Amstrad product, then a form of lease, or bribe, has to be taken out through the club before spares or accessories can be purchased? After all, this is what your reply would seem to imply.

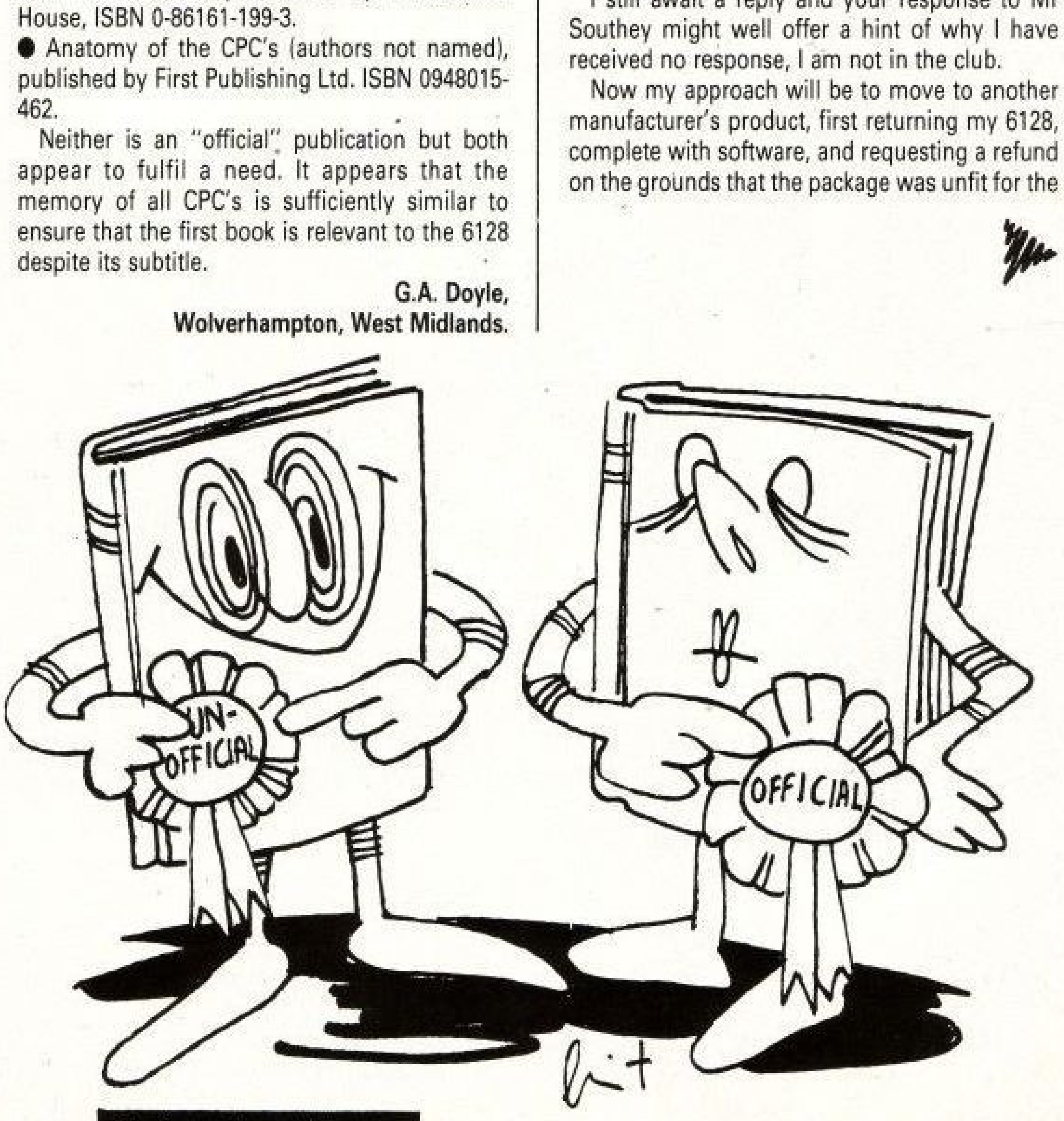
I feel that Amstrad must be operating a monopoly sales technique in this regard, and this is not in the customer's interest, a case surely for the Monopolies Commission.

I am a recent Amstrad purchaser with a CPC 6128. This machine was purchased from Dixons in August 1987 and came complete with a package of software, Soft 1010, by Microscript.

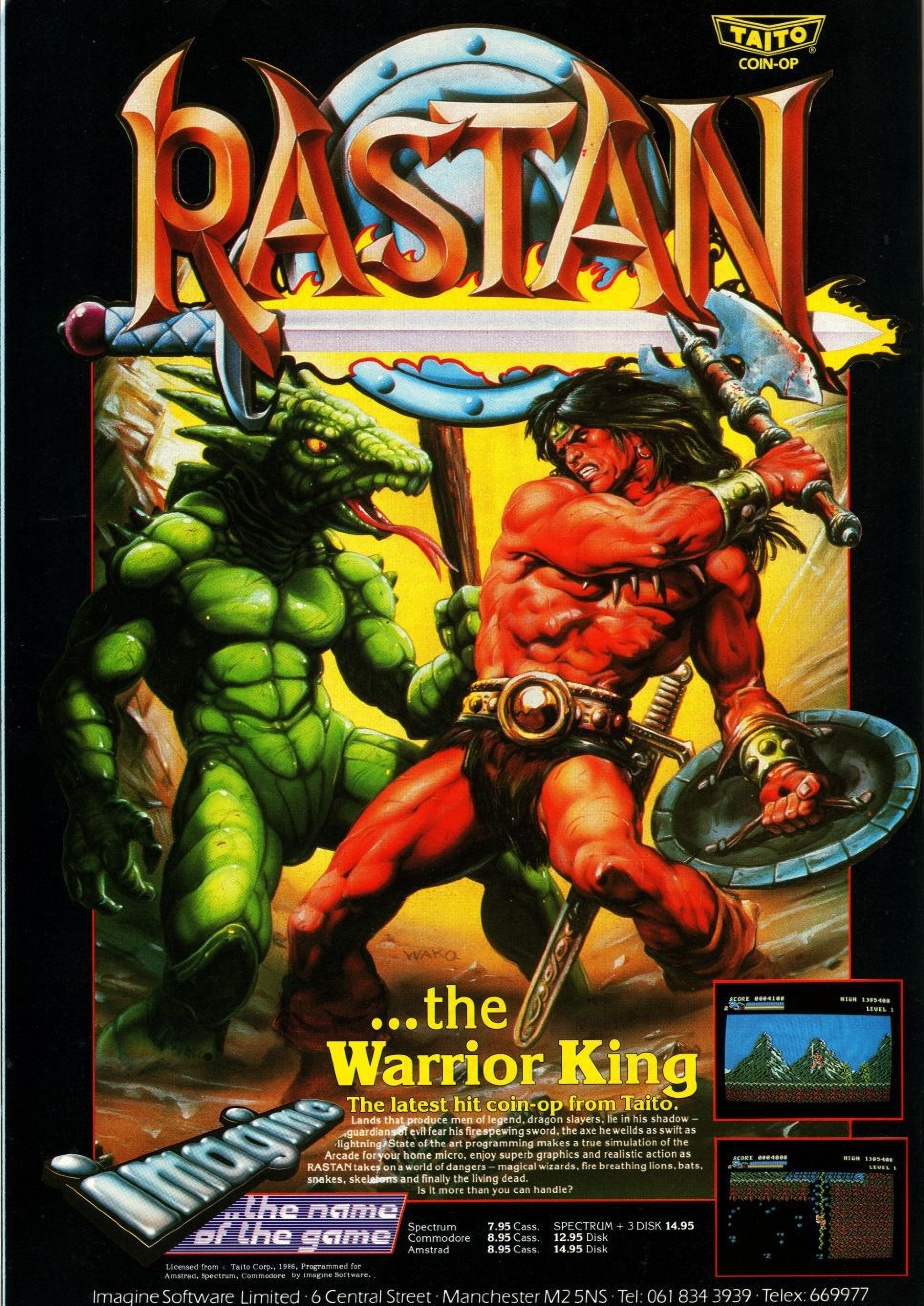
I have had two copies supplied by Dixons and both will not operate due to an error which one is requested to report to the supplier. I have done this and at their request wrote direct to Amstrad on the subject.

I still await a reply and your response to Mr Southey might well offer a hint of why I have received no response, I am not in the club.

Now my approach will be to move to another manufacturer's product, first returning my 6128, complete with software, and requesting a refund on the grounds that the package was unfit for the



Send your letters to:
Lance Davis
Letters Editor
Amstrad Computer User
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RASTAN
WAKO
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Warrior King
The latest hit coin-op from Taito.
Lands that produce men of legend, dragon slayers, lie in his shadow – guardians of evil fear his fire spewing sword, the axe he weilds as swift as lightning. State of the art programming makes a true simulation of the Arcade for your home micro, enjoy superb graphics and realistic action as RASTAN takes on a world of dangers – magical wizards, fire breathing lions, bats, snakes, skeletons and finally the living dead.
Is it more than you can handle?
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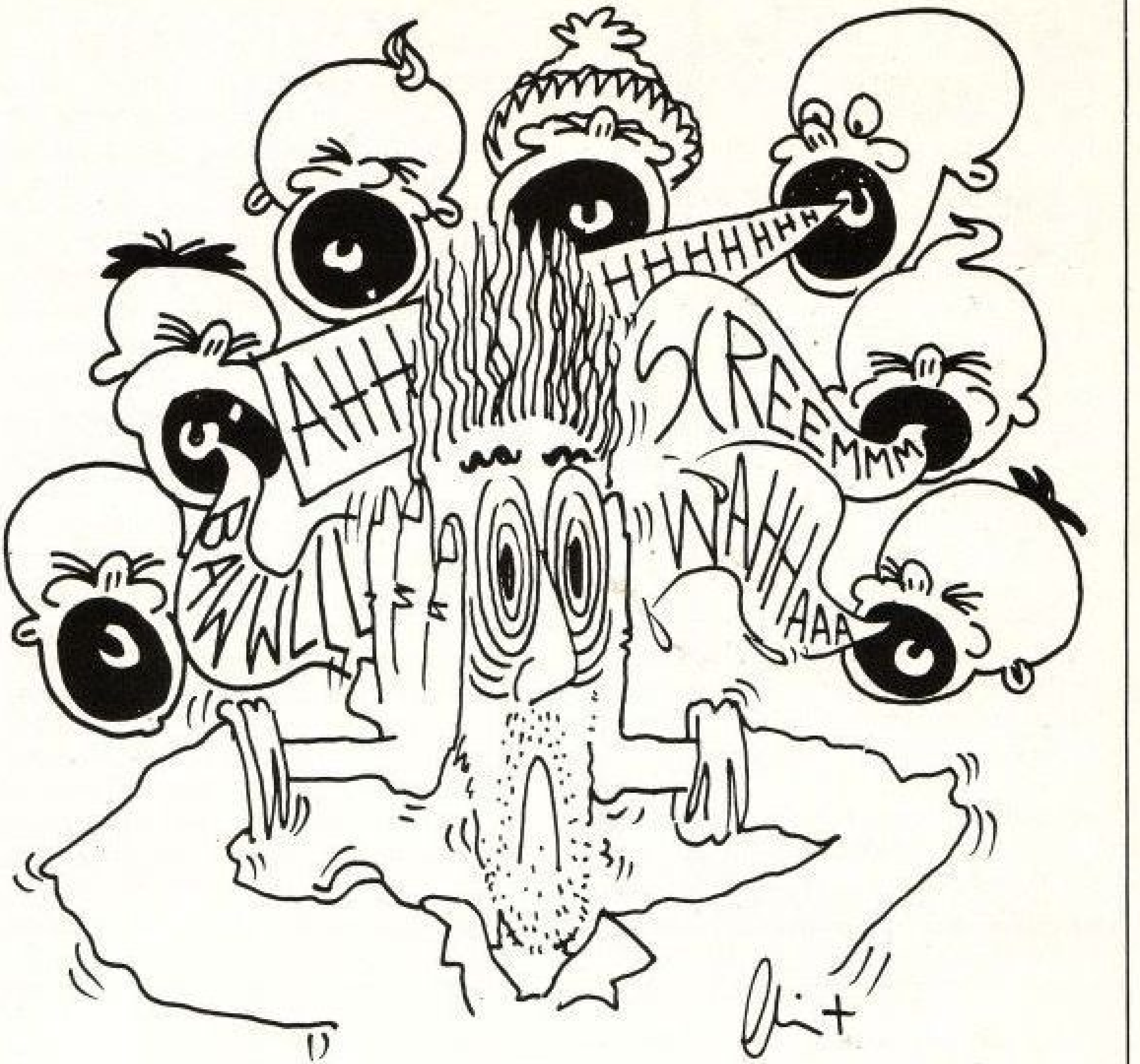
purpose for which it was sold.

First, I have written to Dixons head office to see if they can do better than my local store, but I will consult with my Trading Standards Office failing my obtaining satisfaction.

Mr J.Collier,
Kinross.

LD: *The User Club is not limited to members. Anyone can buy from them – it's just that the prices are keener if you join. They keep good stocks of all Amstrad products and so would always be my first port of call when I wanted to buy a peripheral.*

Both spares and customer services are run by entirely separate companies to the User Club – they couldn't find out if you were a member if they wanted to. Your accusation that they will only help if you "bribe" them is totally unjust.



Going South

I AM the owner of an Amstrad CPC 6128 and am moving to Hong Kong with HM forces shortly for two years. I rely heavily on the CPC both for home and work use, and I am concerned that the heat and humidity will damage the system.

I would appreciate any advice or assistance you could offer me on this matter.

G.P. Barlow,
Warminster, Wilts.

LD: *Many parts are made there.*



Good software

I FIND you are always saying that certain games are available from any good software shop. Please could you possibly spare a page to list a few of these type of shops. I am sure other readers would be very grateful if you could do this.

I also think your Gallup Chart is so helpful as to which games to buy. I am ordering the Christmas Cracker games for the CPC 6128 on disc.

I am only 10 years of age and find programming rather difficult. Please could you make some simple, easy but fun programs for any other children. I love adventure games and they are my favourite topic in your magazine.

Georgina Pearce,
Lightwater, Surrey.

LD: *It's difficult to find good software shops. I like JKL in Uxbridge, Adams World in Edgware and Finchley, Pilot Software City in Rathbone Place off Oxford Street and the Virgin shops in Oxford Street and near Marble Arch, but it is difficult to keep an eye on all the shops.*

If you find a good dealer try and buy all your software there, loyalty pays in the end.

Copying games

I AM thinking of giving my CPC 464 a new home and acquiring a new CPC 6128M, the disc drive being the importance here. Can you tell me is it possible and legal to transfer my 50 or more games on to disc, bearing in mind that the original copies of the games will not be sold but donated to my nephew as a gift along with the machines?

My second problem is not so much to do with computers but with an article I read about certain accessories for them in a newspaper. The article was about boxes (Red Boxes I believe they were called) which were plugged into the mains sockets prior to plugging in whatever electrical appliance – say an electric radiator – that you wished your micro to control.

With this system you needed an attachment on your mains supply to stop your commands affecting anybody else's boxes in the street, or vice versa.

My problem is this: We have a baby alarm that works on the mains circuitry, trouble is that it picks up two or more of the same devices in our area.

Would the same attachment used to stop sending your micro commands out into the local area stop noises from other baby alarms coming into my house?

Last but not least, does anybody know how to get past the pedal-powered generator in Vampire without the game resetting itself with loss of all lives even in cheat mode?

C.W. Smith,
East Lothian.

LD: *Firstly it is illegal to make copies of a game, whatever you do with the original. I can just see the Bank of England accepting a photocopied fiver on the basis that you have lost the original. No form of copying is legal.*

I doubt that the Red Boxes would help your baby alarm problems. The supply ought to be suppressed as it comes into your house – check

with the local electricity board. GIS, who make the Red Boxes, may be able to offer some advice. They are on 048087 464.

More expensive?

I am writing concerning the 25 per cent increase in your magazine. I mentioned this in a recent correspondence to the user club and they suggested I write to you. I know you say at the end of the magazine that you will be putting more articles in, but I cannot see this justifies such an increase. I only hope you will be putting more in for the 464, as lately you have concentrated more on the later models.

The price increase does not affect me at present as I get mine through the User Club, but I expect when my subscription falls due it will be increased, which will not only reduce the members but will also reduce your readers.

S Barker,
Hull.

LD: The very first issue of CPC 464 User was published in August/September 1984 at a price of £1, that was reduced to 95p for many months, then about two years ago we went back to a price of £1.

To be honest, the odd 5p does not make that much of a difference, it's just that newsagents find it easier if they don't have to give change.

The new price of £1.25 represents the first real increase in three years. This is pretty much in line with inflation, we don't like doing it but feel it is the best way to keep ACU up to the standard to which you have become accustomed.

Protext pontification

I WAS surprised at Mr Henson's implication in your last issue that Protext is difficult to use – he must have a different version from mine.

Being a computer illiterate, and totally uninterested in anything but using programs for my immediate needs, I still find the original Protext on rom very easy to use and prefer it to Mini Office II or Tasword for simple word processing – which is all I require of it.

It is easy to ignore its other features, which are obscure and of no interest to me. Protext has bugs and eccentricities like most other programs. Notably it seems impossible to add text to columnar layouts without adjusting all subsequent columns, and, rarely, for no apparent reason, it may continue a line forever instead of ending at column 80 but I forgive it these for its immediacy and memorable instructions.

For really painful word processing try using the Macintosh, which is more like a difficult arcade game.

David Dowd.

Multiple prints

YEUK! In reading your letters page (January 1988), I was disgusted to see the re-use of a letter by Graham Steele. It previously appeared in C.W.T.A. (December 1987) under the title "Play it again". This he did. I feel it unfair that this can happen. Please go to his abode, and break his legs.

M Pielow,
Drumcondra, Dublin.

LD: You are not the only correspondent to have commented on this. It is impossible to check to see who has been sent copies of a letter, I'd say that your solution is a trifle draconian, but I'll think about it.

SIREN SOFTWARE

Print Master

This superb program must be the most useful printer utility to date

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CPC 464/664/6128

Discology

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Disc copier will backup 99.9% of all Amstrad discs.

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PC 1640 DD Enhanced Colour Monitor	1033.85	982.16
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PC 1640 SD Enhanced Colour Monitor	918.85	872.91
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PCW 8512	458.85	435.91
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Spectrum 128+2	139.95	132.95
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LQ 3500 Printer Fabric Ribbon	6.50	5.20
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1000 Sheets A4 70gm Continuous Paper	12.95
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3.5" Head Cleaning Kit Disc	6.99
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Details of Goods	Cass	Our Price	Disc	Our Price
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6 Pak	9.95	8.96	14.95	13.46
6 Pak Vol 2	9.95	8.96	14.95	13.46
Academy	9.95	8.96	14.95	13.46
Ace	9.99	8.99	14.95	13.46
Ace of Ace	9.99	8.99	14.99	13.49
Acrojet	9.95	8.96	14.95	13.46
Advance Art Studio	–	–	24.95	22.46
Aliens (Electric)	9.99	8.99	14.99	13.49
Aliens (U.S. version)	9.99	8.99	14.99	13.49
Annals of Rome	12.95	11.66	17.95	16.16
Arkanoid	8.95	8.06	14.95	13.46
Armageddon Man	12.95	11.66	–	–
Army Moves	8.95	8.06	14.95	13.46
Asphalt	9.95	8.96	14.95	13.46
Auf Wiedersehen Monty	9.99	8.99	14.99	13.49
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Big 4 Vol 2	9.95	8.96	14.95	13.46
Black Magic	9.99	8.99	14.99	13.49
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Bombjack 2	8.95	8.06	14.95	13.46
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Five Star Games 2	9.95	8.96	14.95	13.46
Five Star Games 3	9.95	8.96	14.95	13.46
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Gameover	8.95	8.06	14.95	13.46
Gauntlet	9.99	8.99	14.99	13.49
Ghost and Goblins	8.95	8.06	–	–
Go-Bots	8.99	8.09	14.99	13.49
Great Escape	8.95	8.06	14.95	13.46
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Guild of Thieves	–	–	19.95	17.96
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Mercenary	9.95	8.96	–	–
Mecenary Comp	–	–	19.95	17.96
Metrocross	9.99	8.99	14.99	13.49
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Details of Goods	Cass	Our Price	Disc	Our Price
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Advance Music System	–	–	29.95	26.96
Amsdac (Easy)	19.95	17.96	–	–
Amsprite	14.95	13.46	–	–
Amsword (Advance)	19.95	17.96	23.95	21.56
AMX 3D Zicon	–	–	24.95	22.46
AMX Mouse+Art+Op System	69.95	62.96	–	–
AMX Pagemaker	–	–	49.95	44.96
Animator	14.95	13.46	17.95	16.16
Art In Pascal	14.95	13.46	–	–
Art Studio	–	–	19.95	17.96
Artworks	9.95	8.96	14.95	13.46
Azimuth Head Allignment Tap	8.99	8.09	–	–
Basic 2	19.95	17.96	–	–
Bonzo Blitz	–	–	10.50	9.45
Bonzo Doo Dah	–	–	11.50	10.35
Bonzo Meddler & Hackpack	–	–	11.50	10.35
Brain Storm	–	–	49.99	44.99
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C the Language	34.95	31.46	39.95	35.96
Card Box	–	–	59.99	53.99
Catalogue	–	–	14.95	13.46
Code Machine	12.95	11.66	–	–
Combined Business Package	–	–	99.00	89.10
Consise Firmware Spec 464	19.95	17.96	–	–
Concise Firmware Spec CPC	–	–	19.95	17.96
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Crash Course	24.95	22.46	–	–
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Delta	–	–	99.99	89.99
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DFM Database	24.00	21.60	–	–
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Dr. Graph	49.99	44.99	–	–
Ed80	–	–	19.95	17.96
EMU	–	–	19.95	17.96
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Illustrator	16.95	15.09	10.00	9.00
Image System	19.95	17.96	–	–
Instant Recall	–	–	24.95	22.46

CPC UTILITIES (Cont.)	Cass	Our Price	Disc	Our Price
Laser Basic	–	–	19.95	17.96
Laser Compiler	19.95	17.96	24.95	22.46
Laser Genius	–	–	19.95	17.96
Light Pen 464	19.95	17.96	–	–
Light Pen 7 Graphics 6128	–	–	29.95	26.96
Light Pen II	–	–	29.95	26.96
Locksmith Rom	–	–	29.95	26.96
Logo	19.95	17.96	–	–
Machine Code Tutor	14.95	13.46	–	–
Master Disc	–	–	12.99	11.69
Master File II	–	–	29.95	26.96
Master File III	–	–	39.95	35.96
Mastercalc	24.95	22.46	29.95	26.96
Mastercalc	33.00	29.70	–	–
Masterfile II	33.00	29.70	–	–
Matrix Spreadsheet	–	–	34.95	31.46
Maxam	19.95	17.96	26.35	23.72
Maxam (Eprom)	39.95	35.96	–	–
Melbourne Draw	14.95	13.46	24.95	22.46
Micro Graphics Pack	9.95	8.96	14.95	13.46
Micro Spread	–	–	49.00	44.10
Microfile/Microword	–	–	49.95	44.96
Micropen	–	–	49.00	44.10
Microscript	–	–	49.00	44.10
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Modem V21/23 Amstrad/Page	–	–	99.95	89.96
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Multiplan	–	–	69.99	62.99
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New Word 6128	–	–	69.00	62.10
Mini Office II	14.95	13.46	19.95	17.96
Nominal Ledger	–	–	33.00	29.70
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Pascal	–	–	44.95	40.46
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Pascal MT+	–	–	49.95	44.96
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PlanIt	–	–	19.50	17.55
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Popular Accounts	–	–	99.95	89.96
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Prospell	–	–	24.95	22.46
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Purchase Ledger	–	–	33.00	29.70
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Retrieve	–	–	69.99	62.99
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Speech Synthesiser	–	–	29.95	26.96
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Tas Print	–	–	12.95	11.66
Tas Print 464	9.90	8.91	–	–
Tas Sign	–	–	29.95	26.96
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Tascopy	–	–	12.95	11.66
Tasword	–	–	24.95	22.46
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Toolkit	29.95	26.96	–	–
Torch	–	–	12.95	16.66
Touch and Go	–	–	24.99	22.49
Transact	–	–	33.00	29.70
Turbo Base	4.35	3.92	–	–
Turbo Basic	–	–	19.95	17.96
Two Finger Touch Typing	–	–	24.95	22.46
Ultra Base	9.95	8.96	17.95	16.16
Utopia (Eprom)	–	–	29.95	26.96
Video Digitiser Inc L/pen	–	–	99.95	89.96
Word Perfect	–	–	24.95	22.46
Write Hand Man	–	–	29.95	26.46

CPC Educational Software

Details of Goods	Cass	Our Price	Disc	Our Price
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Better Maths (12-16)	9.95	8.96	14.95	13.46
Better Spelling (9-14)	9.95	8.96	14.95	13.46
Biology	9.95	8.96	14.95	13.46
Chemistry	9.95	8.96	14.95	13.46
Happy Letters	9.95	8.96	14.95	13.46
Happy Numbers	9.95	8.96	14.95	13.46
Happy Writing	9.95	8.96	14.95	13.46
Magic Maths	9.95	8.96	14.95	13.46
Mapwork Quiz	9.95	8.96	14.95	13.46
Maths Mania	9.95	8.96	14.95	13.46
Maxi Maths	9.95	8.96	14.95	13.46
Physics	9.95	8.96	14.95	13.46
Playschool	9.95	8.96	14.95	13.46
Weather/Climate	9.95	8.96	14.95	13.46
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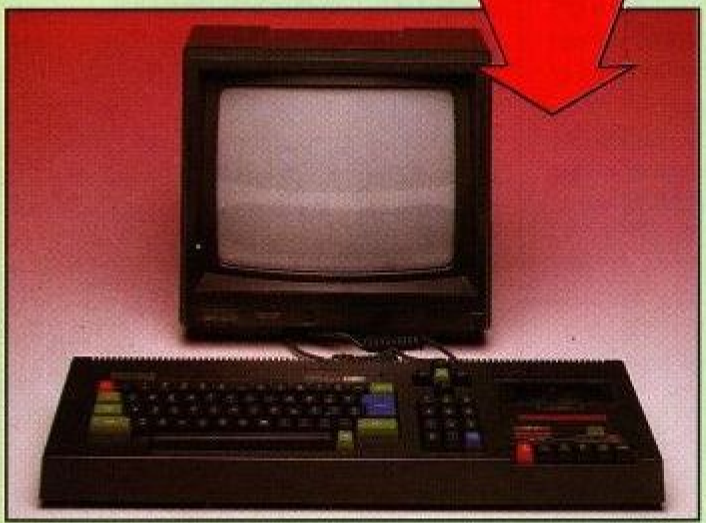
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IT'S the complete computer upgrade kit. Only RAM Electronics can give your CPC the kind of upgrade which turns it from a good home computer into a complete entertainment system. They make and sell the goodies which were invented by DK'Tronics as well as their own Music Machine. Some of their add-ons make your machine a better performer, an extra 256k ram and a silicon disc speed up input/output operations. The music machine adds super sampled sound, while the speech synth and lightpen allow you to do new, creative things with your computer. Everyone can get a little tired of programming or alien zapping now and again so we have even thrown in a box of tricks which will turn your monitor into a television. This little lot would cost around £500. But you can win it in our easy-to-enter competition.

HOW TO WIN:

Answer these simple computing questions and you could be in-line for the RAM goodies.

1) BASIC stands for:

a) Big And Sloppy Information Calculator
b) BArton and SICkly's programming language
c) Beginners All-purpose Symbolic Instruction Code

2) The Amstrad CPC464 was codenamed:

a) Arnold
b) The Microwave
c) Super dooper mega computer which we mustn't tell anyone about

3) When I Fall In Love was a hit in 1987 for:

a) Rick Astley
b) The Bee Gees
c) What has this got to do with computers anyway?

Rules:

1. The winner will be the first correct entry opened on March 31
2. You may photocopy the form, but only one entry is allowed per reader.
3. Anyone found entering more than once will have ALL entries disqualified.
4. Employees of *Amstrad Computer User* and associated companies may not enter. That includes Jayne in advertising.
5. The editor's decision is final.

ENTRY FORM

Name CHRIS CAVIES

Address 14 Avonham Lane

Preston Lancs

Phone number

1
2 Arnold (a)
3 Rick Astley (a)

Send to:

RAM Electronics/Amstrad User Competition
169 Kings Road, Brentwood, Essex CM14 4EF

Computer owned:

464 ☑ 464 with disc ☐ 6128 ☐

**Ramfeezled – worn out, exhausted.*

Seek and ye shall find

Into adventures with Bill Brock

THEY say that old soldiers never die but just fade away. For a while it seemed that one of our favourite adventure software houses, Level Nine, was doing just that. After the agreement with Rainbird to act as their distribution agents, the number of new games appearing in the last couple of years dwindled to an all time low.

Now, following in the footsteps of the release of Knight Orc via Rainbird, Level Nine has launched a brand new adventure under its own name.

Gnome Ranger is the story of Ingrid Bottomlow, a somewhat forceful young gnome who has just completed her education at the Institute of Gnome Economics.

As a leaving present the principal, Mistress Gneehigh, has given her a diary. Reading this, one learns all the ghastly details leading up to her present predicament. Ingrid is one of those well meaning mortals that strive to better, not only themselves but those around them as well.

At college she completed her course in an all time record of 13 years, studying through all her spare "private idleness periods" and continually asking her teachers for extra work. Unaccustomed to such a zealous attitude to life, it is not surprising that the college staff were actually quite pleased to see the back of her.

When she got home, she started to look around for ways in which to improve both her home and her family. Her ideas were all sound, but nearly all her efforts ended in disaster. Her progressive attitude also jarred with a gnomic family that had become set in its ways.

Sadly Ingrid could not understand this side of her family and as her diary reveals, she was blind to the sometimes forcible hints that they gave her.

The burden of having Ingrid at home finally becomes too much and the family gives her a gift wrapped scroll. Ingrid is delighted and cannot wait to open this surprise present. In the quiet of her room she undoes the pretty paper . . .

She is transported far, far away. Surely the scroll must have been faulty . . . when she gets back, she will have some strong words to say to whoever sold it to her family. Completely undaunted by the experience, Ingrid sets out to walk home, and this is where the adventure begins.

Gnome Ranger is available for both the PCW and the CPC machines (tape and disc); disc versions also have some excellent graphics to compliment the story line. Level Nine has yet again improved its operating system (now called KAOS). Not only are there RAM SAVE/LOAD, GET/EXAMINE ALL and OOPS commands but also extensive interaction with other characters. There is a great deal of very amusing and readable text.

If you have been everywhere, read everything and are in a hurry, use BRIEF to reduce the amount of descriptive text.

Pressing the up arrow key will recall your last input for editing (or to repeat that command). Pressing this key repeatedly will recall other previous commands. After checking that it would recall at least 30, I lost interest. The down arrow enables you to cycle forwards through previous commands.

Another feature of Gnome Ranger is the facility to simply enter GO TO FOREST or GO TO COTTAGE rather than giving a string of compass directions. Once you have mapped out the terrain you can enter EXITS OFF and simply GO TO or RUN TO wherever it is you wish to go.

Complex commands of the sort DROP ALL BUT THE SHOVEL are no problem at all, and what a relief it is to find that only the first four letters of a word are needed to identify an object or person.

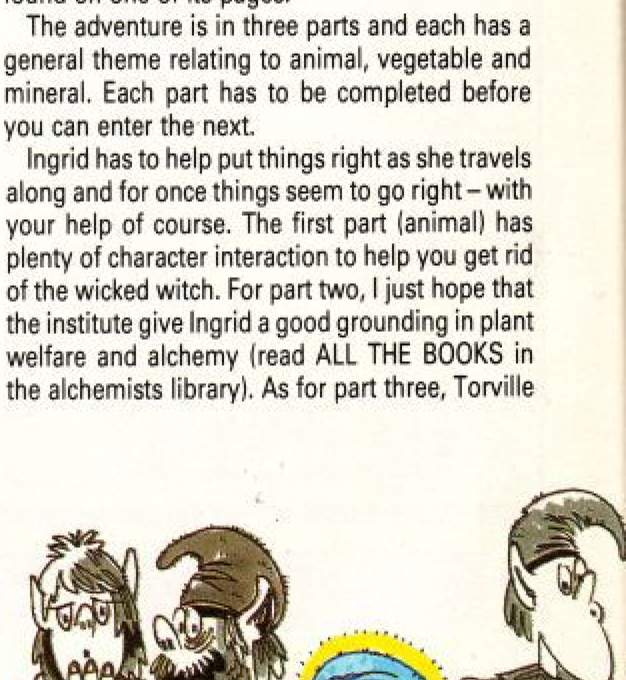
Having made friends with one of the independent characters, you may also instruct that character to follow you. You can even tell them to GO TO or FIND something and then follow them. To win through to the bitter end you will also need to give them more complex instructions. An early example is where a pretty gnymph is given a shovel, told to go east and dig – while Ingrid keeps her eye on a rainbow so that it does not move.

I do not usually give such explicit clues, but with Gnome Ranger, although all of the puzzles are perfectly logical, you must be aware of the need to elicit help from those friends you meet along the way. Humour abounds throughout, and the substitution of GN for many an N is quite brilliant. Needless to say the command interpreter understands both the gnomic and human versions, and you can even GO GNW (gnorthwest!).

Ingrid's diary is a 48 page mini booklet that makes very entertaining reading. Reading between the lines highlights the real sadness of a bright but naive young child in the company of a rather orthodox family. The diary is also used as an anti-pirating device. When you restore a saved game position, you will be asked to enter a word found on one of its pages.

The adventure is in three parts and each has a general theme relating to animal, vegetable and mineral. Each part has to be completed before you can enter the next.

Ingrid has to help put things right as she travels along and for once things seem to go right – with your help of course. The first part (animal) has plenty of character interaction to help you get rid of the wicked witch. For part two, I just hope that the institute give Ingrid a good grounding in plant welfare and alchemy (read ALL THE BOOKS in the alchemists library). As for part three, Torville



and Dean had the right idea in their ballet – fire and ice!

I think that this is probably Level Nine's best game yet. There are volumes of good text, a



Gnome Ranger – Level 9's best for a while, helped by Ingrid Bottomlow

believable story line, an excellent operating system and puzzles that vary from easy to outright devious. There are not that many locations, but even if you cannot solve Ingrid's problems in a hurry, there is plenty to see and do in Gnome Ranger. An absolute must for any adventurer.

Confusion reigns

In our August 1987 issue we looked at Passengers on the Wind, a French program (translated into English) from software house Infogrames. Based on a very popular French comic strip created by Francois Bourgeon, the story to date is long and involved.

The action takes place about the time of the French Revolution and revolves around the mistaken identity of a young French heiress. Infogrames has now released Passengers on the Wind 2, which continues the long-running saga.

The instructions for POTW 1 had a reasonable introduction explaining the background to the story. Sadly POTW 2 has hardly any explanation at all, and assumes that the player has already completed the first part. To say that the player could be a little confused at the start is definitely an understatement.

Who are all these characters you meet? What is their relationship to one another and what is their reason for being where they are? On the other hand, many of us have started playing adventures with even less information, so perhaps we should not grumble too much.

Just remember that Isa is the lost heiress and that Hoel, Mary and St Quentin are all on the side of the angels. All the other characters are either neutral or wearing black stetsons. Firstly you must help Isa stay alive and finally help solve the clues to her identity.

The game is best controlled with a joystick (the keyboard may be used instead) and no text entry is required. Moving the cursor over a part of the screen and pressing the fire button starts the next sequence of action.

The main scene appears across the top of the screen, one window below this displaying a picture of who is talking and a second the text. The graphics are really superb, with the opening picture of each episode (there are seven) being overlaid with smaller cameos as different people and actions are bought into play.

Different people present may be selected to talk, and the order in which you get their responses may effect the course of the story.

Several times in each episode a character will have the choice of making one of several statements. These are the real deciders as to what will happen next. There are also occasions, other than the opening sequence of each episode, when you have to place the cursor over the main several other slightly more obvious choices.

Although the story may seem complex and the path tortuous Passengers on the Wind 2 is something that has to be experienced to be enjoyed. It is not easy, but the rewards are great. Just save at the beginning of each episode so that you do not have to start all over again if you make a mistake.

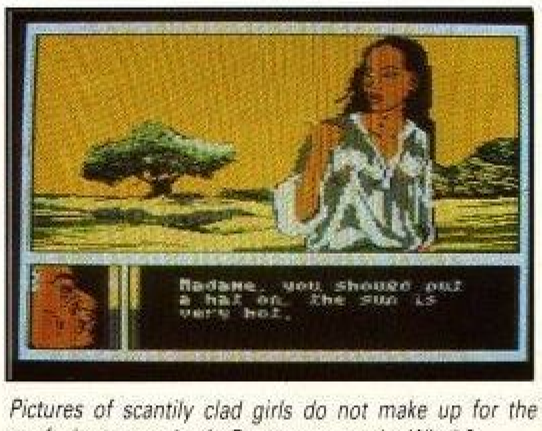
We have had several "book adventures" that rely on multiple choice questions to determine the outcome, but Passengers on the Wind 2 and its successors must surely be the way to go...

Most of us can remember some of the nursery rhymes from those distant days of innocence. Because they are known to so many, they have



picture to initiate a special action.

This business of clicking on the main graphics screen is really diabolical as there is no certain way of knowing where or when you have to do it. In the first episode you must click on the trigger of a gun to make it fire. At other times you must pick up a gun that is dropped, get a character to fire a gun, open a slave's collar, open an envelope, select a character to respond and



Pictures of scantily clad girls do not make up for the confusing gameplay in Passengers on the Wind 2

been used by many authors and composers to give an extra dimension to their work. There is no doubt that reference to something that we are familiar with heightens the awareness. Just think of when you have read a novel that takes place in a locality you know well.

We now have an adventure totally devoted to the subject – The Case of the Mixed-Up Shymer. You play the part of Shirley Combes, private secretary to the legendary Sherlock Holmes. The great man is away on a case involving a fearful hound in the West of England and the phone rings (ding dong bell?).

Apparently there are riots all over the country – in nursery schools! It seems something is wrong on the Isle of Nersree. You decide to investigate yourself and set off in your pea-green boat . . .

A strong current drags you onto the rocks and your boat is holed. Not only must you correct the situation on Nersree but you must find the means

of making your boat seaworthy for the return trip. You had better dig out those well worn books and swot up on who did what to who in the nursery.

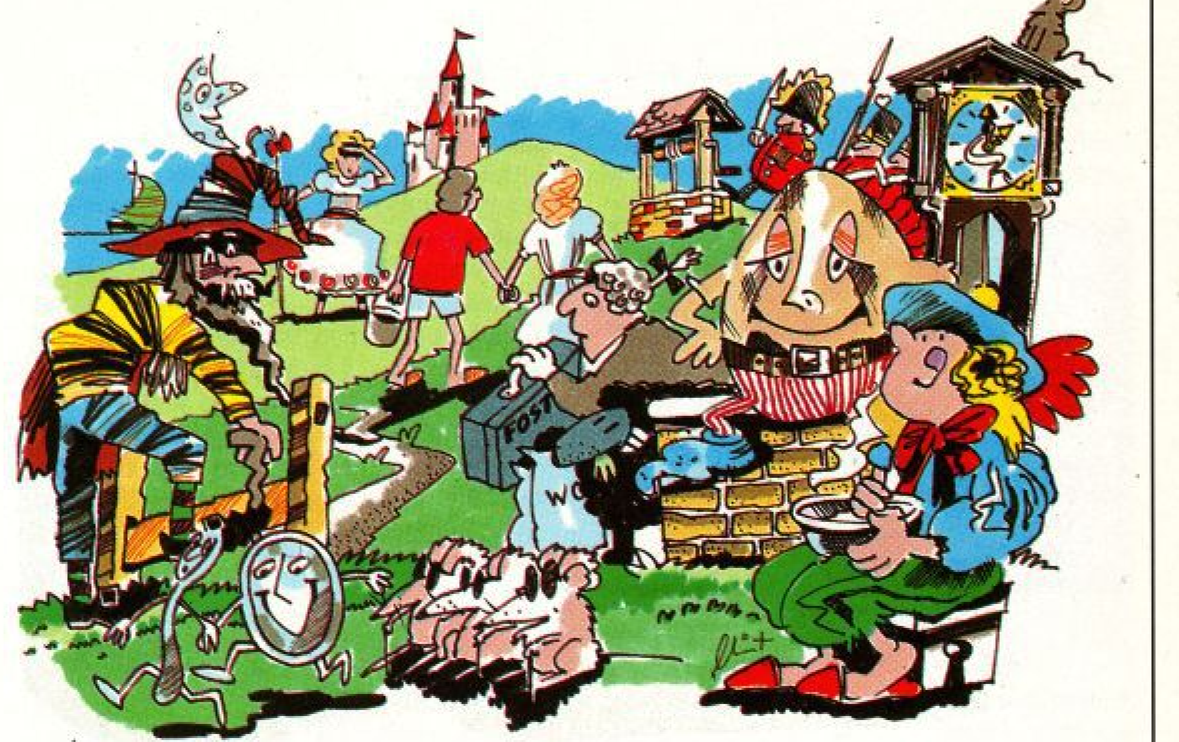
The game is not difficult to play; there are no mazes and no one is lurking round the corner to kill you off. That does not mean that it is easy to finish. The game strategy is to create a situation where the rhymes will once again come true. This can often mean giving the right thing to the right person, but it easy to make a mistake, so keep a weather eye open for your score.

Written by a regular player of adventures, Sandra Sharkey, Shymer is text only. Sandra, in common with many others, does not think that graphics are what makes a good adventure. Atmosphere, presentation and plot are the major factors in enjoyment.

For a first game, Sandra has managed all three very well indeed. The text is not over long and is well presented on the screen in a very readable redefined character set.

It was written using Incentive's Graphic Adventure Creator, and you may give multiple commands and also use IT when referring to the last used noun. There is no ramsave but saving/loading a game position is accomplished quite rapidly and should be encouraged – just keep a note of what you have saved. Examine everything, and remember that this program recognises UNDER.

A good game for all CPC adventurers, especially those just starting, it is also very cheap – £1.99 for cassette, £4.25 for disc. The Case of the Mixed-Up Shymer is available from Shark Soft, 78 Merton Road, Wigan WN3 6AT. Can you afford to miss out?



Although it is not the normal type of adventure dealt with in these columns, how could we let a title like Sorcerer Lord go by without some mention. PSS has an enviable reputation in the field of computer strategy/wargames.

Sorcerer Lord is a solo fantasy wargame that pits the armies of the free against the evil invasions of the sorcerous ruler of the Northern Shadowlands. Many of the best adventures are linked with swords and sorcery, probably more have been written for this genre than any other. Again, those that stand out, involve the fight between good and evil. Often with emphasis on the fighting.

Sadly the Amstrad has been the loser, as few of these games have been converted for dear old Arnold. Most originate in America and Amstrad CPCs have never got more than a foothold over the big water.

The Ultima series, Wizard's Crown, The Bard's Tale, the Phantasie series, Questron and many others are hidden from us. The closest we have come for the Amstrad was Infograme's Mandragore, slightly pale in comparison to some of the classics but nevertheless a beginning. But where are its successors?

The fantasy adventures above certainly give



Sorcerer Lord – interesting and thought-taxing

active adventurers an opportunity to swing their swords, maces, halberds and cast spells of great power in a good cause, but there is also another side. Special artifacts to find and learn how to use, quests within quests and many puzzles to solve. This is the prime difference between an adventure and a strategy game.

Sorcerer Lord enables you to marshall great armies in the defence of the free lands of Galanor. Recruitment of new allies is imperative and it also requires careful tactics to ensure that your magic users are within range of the ancient stone rune rings that fuel their sorcery. But there is no other quest than the destruction of the evil marauders and their leader.

The principle display is a map displaying the position of the opposing forces, towns and citadels. This map is large and you may scroll it across the screen to see all parts of the land. Terrain is colour coded as you need to know what effect this will have on movement and tactics. Your armies consist of several races who will favour different conditions, so plan your campaign carefully.

Sorcerer Lord is on disc or cassette, but only for CPC machines. The instructions are well presented and an overall map of the lands of Galanor is included.

An absorbing game, but if you are not a wargamer it will take some time to become a true



ruler of the righteous. There are three levels of difficulty and facilities to save a game position, look forward to a prolonged conflict.

RATINGS

	Gnome Ranger	Passengers On The Wind 2	Case of the Mixed-up Shymer	Sorcerer Lord
Plot	78	65	63	
Atmosphere	75	72	65	
Addiction	80	70	68	
Difficulty	77	76	55	
Overall	77	69	65	75

ROMANTIC ROBOT *present*

1988 – THE YEAR OF THE ROBOT

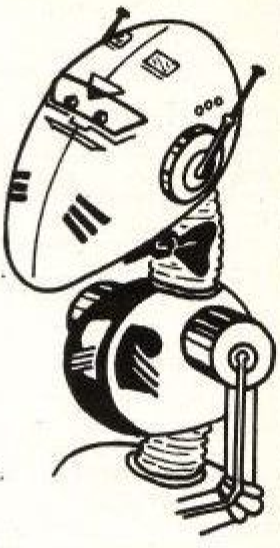


Q: WELL, I'VE HEARD OF THE YEARS OF THE CAT, PIG, AND EVEN DRAGON – BUT THE YEAR OF THE ROBOT?

A: Absolutely! And ROMANTIC ROBOT wish to make 1988 a truly memorable year (if not us, who will?). To kick off with, there is an INTRODUCTORY OFFER OF **£29.88** ON RODOS, plus a truly unique 1988 NEW YEAR MAIL ORDER PRICE OF MULTIFACE TWO – **£39.88!**

***Q: I LOVE SALES. BUT WHAT'S SO LIKEABLE ABOUT* RODOS *and* MULTIFACE?**

A: RODOS is too powerful and complex to be summed up here – please send a SAE for full info. MULTIFACE is (simply) a MUST for ANY CPC owner: it can copy and change programs as you wish.



Q: OH, DO I NEED TO DO ANY PROGRAMMING TO MAKE BACK-UPS?
A: NO! – NOT with the MULTIFACE TWO – it is in fact the ONLY product on the market which works FULLY AUTOMATICALLY. You LOAD any program as usual, RUN it for as long as you like and when you wish to make a copy you just press the MULTIFACE's red button and follow the menu and on-screen instructions.

Q: HOW DOES IT WORK THEN? IS IT EASY? USER-FRIENDLY? ERROR-TRAPPED? IDIOT PROOF? GUARANTEED?
A: YES! It works a treat and it could not be easier. The menu gives four basic options – to **SAVE** a program, to **RETURN** to continue it, to **JUMP** (say to your own routines – invaluable for hackers) and **TOOL** to access the MULTI-TOOLKIT set of built-in utilities. For example pressing **S** to **SAVE** will first allow you to **NAME** the back-up and then let you save a **PROGRAM** or just a **SCREEN** to **TAPE** or **DISK**. Before the saving itself, MULTIFACE compresses the program so that it takes the least amount of space on tape/disk and will re-load as quickly as possible. Once a program is saved, you can **RETURN** or **JUMP**, use the **TOOLKIT** to change it, **SAVE** it again, etc.

Q: DON'T YOU CORRUPT THE SCREEN WITH YOUR MENU, INSTRUCTIONS, PULL DOWN WINDOWS, ETC.?
A: NO. MULTIFACE TWO has its own memory (8K ROM & 8K RAM) and a lot more hardware – thus when it finishes its job or when you re-load your back-ups, everything is **FULLY** and **AUTOMATICALLY** restored: screen modes, colours, windows, etc. This is essential and NO OTHER DEVICE CAN DO IT!

***Q: OK, SO MULTIFACE CAN COPY FROM* TAPE TO DISC, *BUT CAN IT DO* TAPE TO TAPE *OR* DISC TO DISC *OR* DISC TO TAPE?**
A: Of course it can. MULTIFACE saves either to tape or disc and it saves whatever happens to be in the computer at that time – no matter how you loaded it in.

Q: SO FAR SO GOOD. BUT CAN'T I DO ALL THIS WITHOUT THE MULTIFACE?
A: ABSOLUTELY NOT! First, you need a hardware device, a "magic box", to be able to stop and copy programs AT ANY STAGE – be it upon loading, half-way through the game, etc. Tape/disc copiers can only try to copy programs BEFORE they load: if there are unorthodox loaders, speedlocks, protections against copying, etc., you'll end up with a problem – but not with a back-up. Also, with MULTIFACE you can poke infinite lives, ammunition, etc. – and then SAVE.

Q: MULTIFACE IS NOT THE ONLY 'MAGIC BOX' ON THE MARKET – WHY SHOULD I BUY IT MORE THAN ANYTHING ELSE?
A: There are four devices on the market. Action Reply by Datel Electronics, Disc Wizard by Evesham Micros, Mirage Imager and MULTIFACE TWO. Each manufacturer would naturally argue his product is the best buy – fortunately (for you and us), MICRONET recently compared all four units and MULTIFACE TWO came out the best in literally all respects: the most successful one – 100%!, the ONLY AUTOMATIC ONE, the FASTEST ONE both in LOADING *AND* SAVING time, the one taking the LEAST ROOM when saving – and you still get a couple of EXTRAS: a RESET button and an extensive and unique MULTI-TOOLKIT.

Q: MULTIFACE IS IT! THE RIGHT THING IN THE RIGHT TIME! IF ONLY IT PAID FOR ITSELF...
A: But it does! By the time you buy 8 programs on tape instead of disc, you will have saved £40 – the cost of the MULTIFACE. The money you save on further programs is all yours

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Tape-to-disk at the touch of a button. Ridiculous, you may say, but it works every time. *Multiface* can stop any program in its tracks and save the program from memory to either tape or disk. It's completely fool-proof. Similar products have had problems with screen size, colour and even sound; *Multiface* can handle all these without a second thought.

That alone would have satisfied many people, but Romantic Robot has gone one step further, incorporating a memory editor. No program is safe with this: everything is out in the open, including the Z80 registers, CRTC data and any part of memory.

Don't be fooled into thinking this will result in mass piracy, however. The *Multiface* unit itself must be plugged into your Amstrad to allow reloading of a program it saved.

Multiface II must be the cleverest hardware device at present – a necessity for disk owners who thought they were stuck with loading from tape every time.

AMSTRAD ACTION JANUARY 1987

THE YEAR OF THE ROBOT · BE PART OF IT

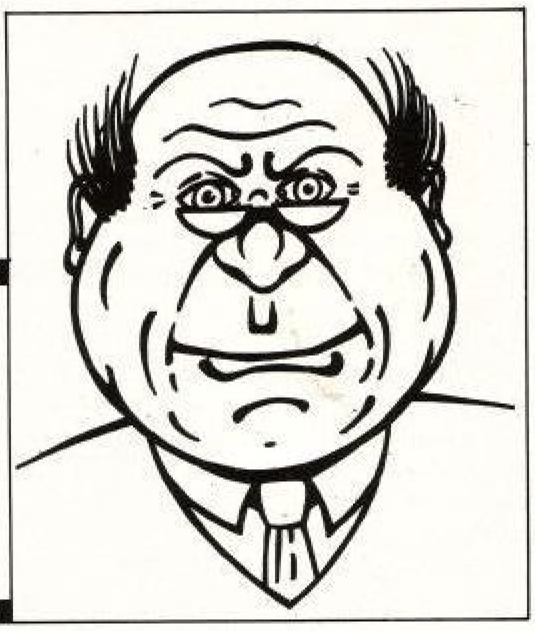
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Applications advice



David Foster, Agony Uncle to the Amstrad community, solves more of your problems with serious software.

LETTERS from far and wide this month and once again, a surplus of printer problems! Many thanks to all those people who have either written in with problems, or even just written to say that they are finding the column interesting.

It is also interesting to note that, though it appears from the various surveys which have been carried out that there are only a small proportion of members of the fair sex use computers, from my mail it appears that a high percentage use their computers for serious applications.

Banked ram and Protext

Alan Tan writes from Singapore wondering whether it is possible to make use of the second 64k bank of ram in the CPC6128 with Protext, either as a printer buffer for spelling checking, or as text storage.

The answer to this is that Arnor produce Promerge Plus, on rom, which works only with the rom version of Protext and provides the facility to hold two files in memory at the same time and to switch between them at a single key press. The second file is always held in the second bank of memory. In addition, Promerge Plus provides a background printing function that uses the second bank of ram, or whatever space is available in it, as a printer buffer, so that you can carry on editing a document, whilst another is printing.

Mr Tan also says that he has an Epson-compatible printer that supports IBM graphics and is having trouble getting it to print them.

The simple answer to this is that the IBM graphics characters are allocated codes higher than 127, and as the Amstrad CPC range only has a 7 bit printer port, which limits the codes that can be sent to the printer to 127 or less, it is not possible to send these codes to the printer in the normal way.

If his printer supports one of the special codes that allow you to set the most significant bit, then he may be able to redefine the codes in Protext to send this code, followed by the character he wants to print, using the Re-define character option Protext's SETPRINT command.

The third enquiry was how to redefine the function keys in Masterfile III so that he can use Ctrl and F key to send sequences to Masterfile.

This is quite easily done with Masterfile and requires a short bit of Basic writing and an example is shown in Figure 1. It is a two part process. First of all you have to allocate an 'Expansion String Token' to the appropriate function key, using the KEY DEF command, then using the KEY command, define what you want the expansion token to contain.

The Amstrad User Manual gives full details on the use of these commands. The new lines of Basic in the Masterfile loader should be inserted between lines 150 and 200 and the modified loader saved to disc. From then on, every time you load Masterfile the function keys will be re-defined automatically.

This is an extremely useful function and can be used to reduce considerably the number of key strokes required for common tasks such as searches you frequently carry out.

```
155 KEY DEF 15,0,128,128,141:
    KEY 141,"Pressing CTRL-F0
    will print this message"
160 REM the following line re-
    defines CTRL-F9 to load a
    data file called'filename'
165 KEY DEF 3,0,137,137,142:
    KEY 142,"Lf ilename"+CHR$(
    13)
```

Figure I: Lines required to re-define function keys in a Masterfile III loader program.

More on Microspacing

Gary D'A Walters writes from Japan saying that he found the explanation in an earlier column of how to use the microspacing feature of Protext most interesting, but that unfortunately it didn't describe the requirements for his Brother HR15 printer and in particular, he cannot find the Brother code to send a space.

The answer to that problem is very simple. The Ascii value for a space is 32, so either put the number 32 in the string of codes to be sent to the printer, or alternatively, just type a space, surrounded by quotation marks, " ". I think that if Mr Walters uses the settings described for the Quendata in the earlier column Microspacing will work.

Re-defining characters with DMP2000

Gordon Steel has written to say that even though he tried my example in an earlier column on how to redefine characters using Protext, so that he can print Greek and unusual characters, it does not work with his DMP2000 printer.

He also comments on the fact that the DMP2000 printer can only redefine the codes from 0 to 31 and that it is not possible to display these on screen with Protext, as Protext uses these as control codes.

The solution to this is actually quite simple.

Select a rarely used character, say the tilde, obtained with Ctrl and the number 2 key and, using the Redefine character option in SETPRINT, redefine it to produce the required code between 0 and 31.

If that character is then used in the document it will appear as the normal character in the document, but when printed, will be converted to the designated code between 0 and 31 and the redefined character will be printed. The >OC commands at the start of the document, to redefine the characters, should refer to the code value that is to be defined (0-31). See Figure II.

There is no need to define and wrap printer control codes round the character on screen to turn on and off the redefined character set in this case. If you want to, you can also re-define the character on screen, using the SYMBOL command from Basic.

```
>OC 27,":",0,0,0 ; rem copy ch
ar set to ram
>OC 27,37,1,0     ; rem turn on
 ram char set
>OC 27,38,0,20,20,0,127,0,73,0,
93,0,73,0,127,0,0 ;rem redefine
 char 20
```

Figure II: >OC Codes required to print a box with a plus sign inside on a DMP2000 printer using /Protext.

Protext and Basic

A.R. Baker has written with a tip on using Protext. Incidentally, he has even redefined some of his characters so that his signature is automatically printed at the end of his letter.

His tip refers to the fact that if you save a Basic program while text is still in memory, after using Protext, it will be saved as part of the Basic program, making it unnecessarily long. If the program is re-saved using the Ascii Save option from Basic, as SAVE "filename",A, then loaded and saved again as a normal Basic program, all the excess text will be removed and the program will be the correct size once more.

Loading printer drivers automatically

Mr Baker also wants to know whether it is possible to reformat text after using Prospell, using an external command and also whether it is possible to load a printer driver at the same time that Protext is loaded.

The answers to those questions are that the whole document may be re-formatted by using the FORMAT command from within Protext and it is possible to load a printer driver as part of the Basic loader routine that loads Protext.

I PRINTER,"filename" A$="filename": I PRIN A$ on the CPC464) will load the printer driver, if used immediately before using the I P command to load Protext.

Qualitas and Masterfile III?

Mrs D.M. Brown is having problems using Qualitas with Masterfile III, in spite of the fact that she says that the Qualitas manual says it works with it and assumes that either there is something missing from the manual or they must be contravening the Trade Descriptions Act.

Well, my Qualitas manual doesn't specifically mention that it will work with Masterfile, merely that it will work with other programs.

In fact as far as I can see, it is not possible to use Qualitas with Masterfile III, for the simple reason that Qualitas requires HIMEM to be lowered by a minimum of 6.5k, in which case there is insufficient memory available for Masterfile to load and it gives a warning to that effect.

More Printer Problems

BJ Wells is trying to get his OKI Microline 182 printer to print in NLQ, or for that matter any other typestyle other than the default.

I haven't used the printer concerned, so don't know whether it is Epson-compatible, but as he doesn't have the necessary manual, having bought it second hand, I would suggest that he contacts X Data (telephone 0753 72331) to obtain a manual.

Once he knows what codes the printer requires, it should be a simple task to insert them into the printer drivers for his word processor. Both Tasword and Protext use similar methods to change printer control codes, Tasword from the Menu and Protext via SETPRINT from Command mode.

The print style is then changed in the course of a document by inserting the appropriate printer control codes into the text and this is fully described in both manuals.

Arthur Scott has the same problem as Gwen Kitchener in an earlier column, in that he has a Silver Reed EXP500 daisywheel, which doesn't support bold and underline, other than by backspacing and printing the same character, or an "underline", over the first one.

If he hasn't seen the answer, then I suggest that he tries to obtain a copy of the January 1988 issue of *ACU*, which gives a partial solution to the problem, using Protext. Unfortunately, there isn't a really satisfactory answer, other than changing the printer, as it is just not capable of doing what is required.

Return to Protext from Prospell?

David Holman is having trouble returning to Protext, having carried out a spelling check with Prospell, using the disc versions of both programs.

There should be no problems, as the programs are written to work together. It is important to load Protext first, then Prospell, in the order described in the manual.

Typing SPELL should then carry out a check on the document in memory and, on completion, automatically return to Protext, with the modified document in memory.

The only exception is when a document in memory is too large to be checked in this way, when you are advised to save the file and check it from disc.

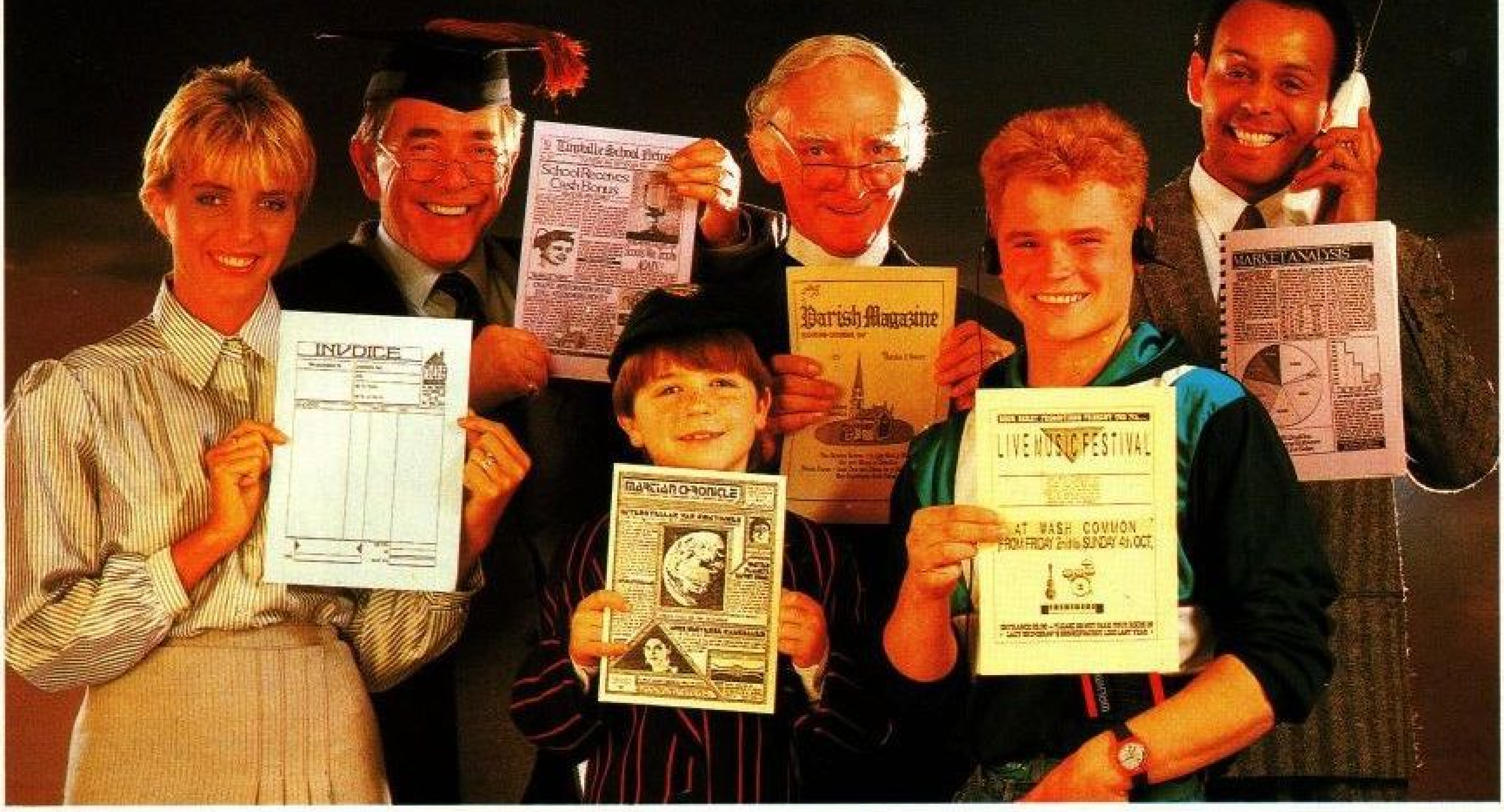
If SPELL filename is used, a check will be carried out on the document called filename on disc, and again a return to Protext command mode should follow.

File transfer with Masterfile 'User Basic'

Finally, a long letter from Keith Kimber has been passed on to me, in which he comments on the fact that one of my earlier columns, on Masterfile and Protext, prompted him to buy *ACU* for the first time, as he uses both.

It appears that the article encouraged him to explore the User Basic facilities of Masterfile, in order to try to import data into Masterfile from another database and save himself a lot of typing. After a number of false starts , he managed to sort out the required Basic and transfer the data. Spurred on by this, he then went on to import all sorts of data from text files as well.

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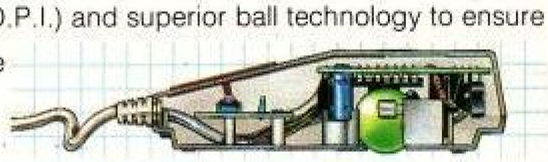
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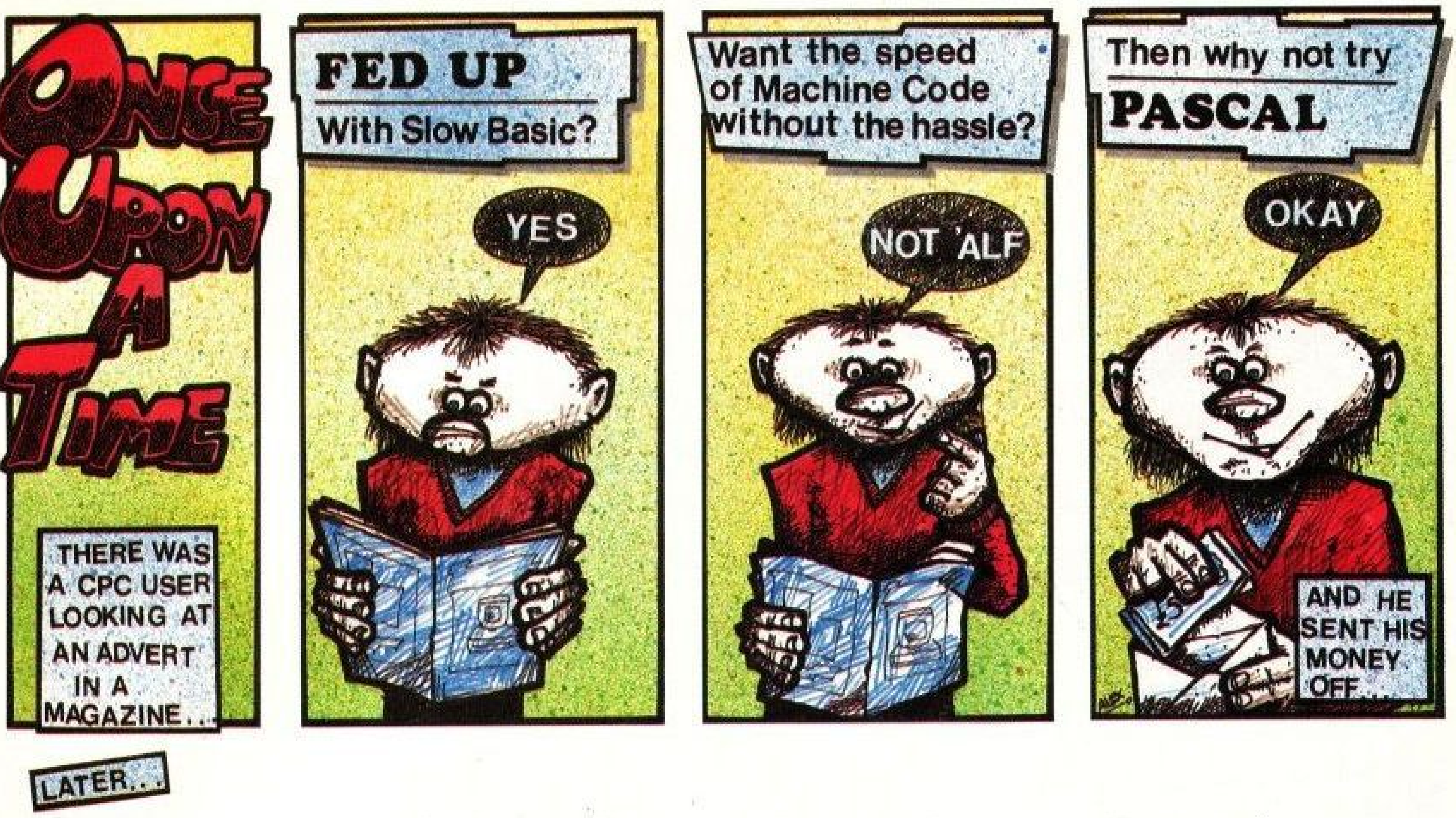
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How much can a language be cut down and still bear the name of the original? Jeff Walker looks at an implementation of Pascal which has gone too far

A FEW days later, after the nice man at the other end had made sure the CPC user's cheque was sitting snugly in his cosy bank account, the Pascal Rom arrived.

Computer languages don't come cheap; £40 is usually the lowest price around, so this particular CPC user was a still a little sceptical of a £20 Pascal especially one on rom, even as he was opening the small, plain brown package it arrived in.

The first thing to check out when buying a computer language is the documentation. Nobody expects a comprehensive tutorial on the language, but a clear and concise explanation of the implementation is imperative. You would at least expect a list of all the built-in functions and reserved words, with some examples of how each works.

After I had picked out the staples, sorted the pages into their correct order, and restapled them together (wasn't I lucky!), the documentation for this Pascal rom consisted of a slim, 24-page, photocopied booklet.

The first half of the booklet informs you of some of the less severe limitations of the program, and attempts to teach you the basics of Pascal programming – something more revered authors have written 300 page books about – and the second half is given over to page upon page of undocumented, confusing, and, in places, smudged listings.

After reading the section About Pascal I was left wondering where the documentation about all the other Pascal reserved words was. Only slowly did it dawn on me that this version supports less than half of the functions you would expect from a "standard" Pascal.

Pascal is a strongly "typed" language. In Basic we have four types: INTEGER, REAL (floating point), STRING, and ARRAY. In Pascal there are more. For a start there should be things called RECORDs and SETs, and, along with INTEGER and REAL, there should be a CHAR type, a BOOLEAN type, and maybe even a STRING type.

Pascal Compiler Rom has only one type: INTEGER. It seems you can have CHAR types and STRING types, but you must declare them as type INTEGER (?).

The lack of a BOOLEAN type is a serious omission. Because of this, the Pascal identifiers TRUE and FALSE are missing too. Boolean functions are among the 10 most useful things in the universe when it comes to ease of programming and debugging.

The lack of a REAL type means there is no floating point arithmetic available, and this rules out the standard Pascal functions like SIN, COS, SQR, EXP, and any other function that may return a floating point number.

The lack of RECORDs and SETs makes this implementation little more than an expensive toy. After all, Pascal was invented so that programmers could structure their data in a clear and logical way. RECORDs and SETs are the data structures that enable you to do this, but not with this effort from John Morrison.

Pascal Compiler Rom supports ARRAYs, but only single-dimensioned ones. John Morrison says this "is not much of a handicap". Maybe not, but it's one hell of a restriction.

Input/Output is controlled solely by the READ/WRITE functions. Strangely, the READLN and WRITELN functions have been omitted. This alone will cause enormous problems when trying to convert standard Pascal code from the books you will no doubt buy or borrow in order to learn the language.

There are no built-in functions for reading/writing to file from within a program. Library procedures are provided for saving and loading Binary files. Routines for Ascii files would have been more useful.

Other important features of standard Pascals that this version omits are pointers, a FORWARD facility for procedures and functions, and facilities for compiling long source code files from disc.

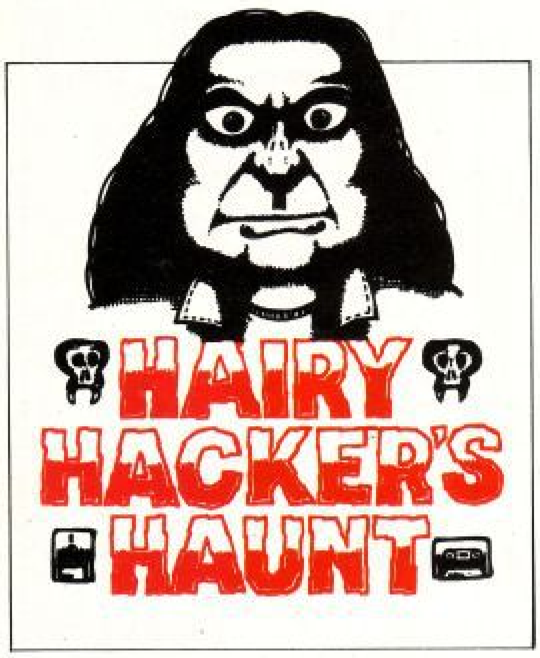
Pascal Compiler Rom cannot compile from ordinary text files, only files saved by its SAVE facility. This forces you to use John Morrison's awful built-in text editor.

The verdict

This implementation of the Pascal programming language is useless to beginners and experts alike because it is so far removed from the agreed standard. If you learn this version, you'll have to start all over again when you get hold of the real thing.

I've got nothing good to say about this piece of "software". Do yourself an enormous favour and steer well clear of John Morrison's Pascal Compiler WOM. No that's not a misprint...it stands for Waste Of Money.

The Pascal Compiler Rom costs £19.95 and is available from John Morrison, 4 Rein Gardens, Tingley, W. Yorkshire. WF3 1JR. Tel. (0532) 537507.



Slow line to Hacksville

Vax – steamin' and rollin' – follows every cheat's train of thought

WHAT a start to a hackers column. Sol, the world's one and only literary cat critic, passed her verdict on my prose while it was in the microwriter. She also passed a large amount of recycled, liquidised cat food over it.

After a frantic wash down, rubbing with surgical spirit, scraping with a dinner knife and boiling in disinfectant, Sol is beginning to feel as if she shouldn't have done it.

This month's Hairy Hacking spot is, in fact, being typed in on my microwriter in a recently vacated railway carriage on a train that is currently heading out for Brentwood. The time is already five minutes past nine, and yours truly is going to be late as usual.

In order to explain my extreme lateness to those concerned, I have compiled a translation sheet for use by newcomers to the British Rail fiasco, which the cutting department will probably tag on the end like a badly fitting guards van (don't peek now!).

Still, British Rail has its good points, and its bad points, but why do they all have to be frozen? No matter, here's something to take your mind off it. This is for the secret squirrels among you, who want an encryption program.

Useful eh? No? Well what about the save and load screen calls from February's Assembly Point put in RSX form then ? Come on, there must be something in there for you somewhere.

Oh yes, there's another version of speedlock (spit!) to crack, and the Arch-Hacker Justin has got it off the production line already. Still, on with the show.

Got a Cray?

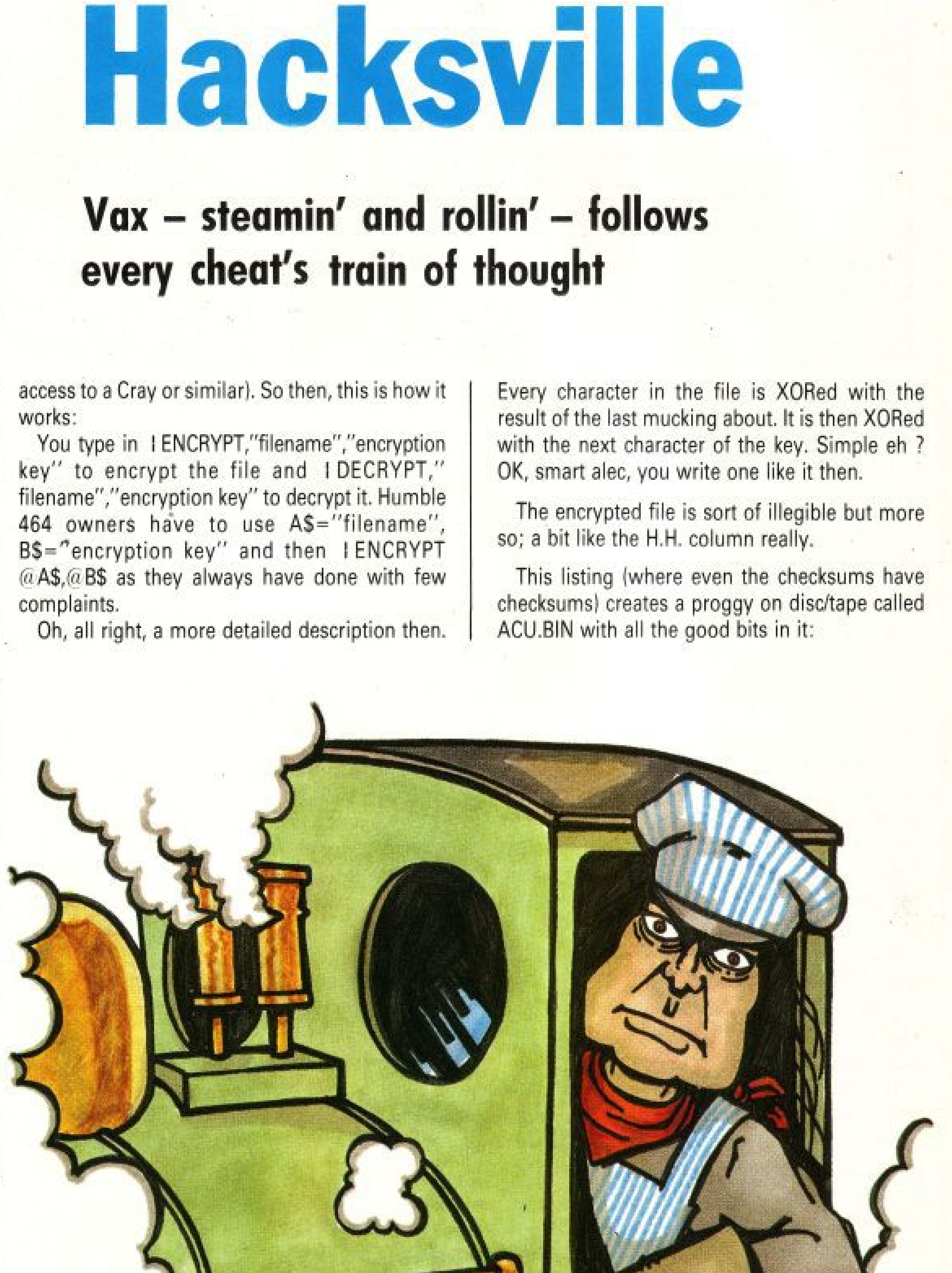
Richard Martin from Swansea has sent in just such a pile of proggyettes (twice, actually) and left me to construct a loader for them. The encryption scheme is remarkably simple, and effective. What's more is that it doesn't matter a bit if you know how it works, you'll still be unable to crack it without the key (unless you have handy access to a Cray or similar). So then, this is how it works:

You type in |ENCRYPT,"filename","encryption key" to encrypt the file and |DECRYPT,"filename","encryption key" to decrypt it. Humble 464 owners have to use A$="filename", B$="encryption key" and then |ENCRYPT @A$,@B$ as they always have done with few complaints.

Oh, all right, a more detailed description then. Every character in the file is XORed with the result of the last mucking about. It is then XORed with the next character of the key. Simple eh ? OK, smart alec, you write one like it then.

The encrypted file is sort of illegible but more so; a bit like the H.H. column really.

This listing (where even the checksums have checksums) creates a proggy on disc/tape called ACU.BIN with all the good bits in it:



```
10 OPENOUT "!D":MEMORY HIMEM-1:CLOSEOUT
20 MEMORY &3FFF
30 n=1000:k=1
40 i=&4000:t=0
50 READ a$:IF a$="*" THEN 200
60 a=VAL("&"+a$):t=t+a
70 POKE i,a:i=i+1
80 IF i MOD 8<>0 THEN 50
90 gt=gt+t:READ a$
100 IF t<>VAL("&"+a$) THEN PRINT"ERROR
in line";n;" of the
data":END 110 n=n+1:t=0:GOTO 50
200 READ a:IF a<>gt THEN PRINT"You have
missed a line
somewhere.":END 210 SAVE"acus",b,&4000,i
220 PRINT"That's all folks !"
230 END
1000 DATA 21,3B,9B,01,3F,9B,C3,D1,366
1001 DATA BC,FE,02,21,7A,9B,C2,21,3D5
1002 DATA 9B,CD,6E,98,D8,CD,80,BC,54F
1003 DATA 38,05,FE,1A,C2,FF,98,F5,4A3
1004 DATA AE,A8,C1,23,B7,ED,52,30,460
1005 DATA 04,ED,5A,18,03,2A,E5,9B,310
1006 DATA CD,95,BC,38,E0,CD,92,BC,551
1007 DATA C3,7D,BC,FE,02,28,06,21,34B
1008 DATA 92,9B,C3,21,9B,CD,6E,98,47F
1009 DATA D8,CD,80,BC,38,05,FE,1A,436
1010 DATA C2,FF,98,AE,A8,47,23,B7,4D0
1011 DATA ED,52,30,04,ED,5A,18,03,2D5
1012 DATA 2A,E5,9B,CD,95,BC,38,E1,4E1
1013 DATA CD,92,BC,C3,7D,BC,CD,7A,55E
1014 DATA BC,CD,8F,BC,DD,6E,00,DD,4FC
1015 DATA 66,01,E5,DD,23,DD,23,CD,419
1016 DATA 2C,9B,C5,E5,11,6D,9C,CD,458
1017 DATA 77,BC,38,0E,21,D6,9B,CD,3D8
1018 DATA EA,9A,E1,DD,E1,CD,FD,9A,687
1019 DATA 37,C9,22,E5,9B,E1,C1,E5,529
```

```
1020 DATA 11,6D,9C,CD,8C,BC,38,11,378
1021 DATA 21,D6,9B,CD,EA,9A,E1,CD,591
1022 DATA FD,9A,DD,E1,CD,7A,BC,37,58F
1023 DATA C9,B7,01,12,00,ED,4A,ED,3B7
1024 DATA 5B,E5,9B,EB,ED,4A,7E,12,48D
1025 DATA 23,23,23,D5,5E,23,56,23,238
1026 DATA 23,ED,53,E7,9B,D1,ED,53,4F6
1027 DATA E9,9B,01,06,00,EB,ED,4A,3AD
1028 DATA EB,01,04,00,ED,B0,E1,DD,44B
1029 DATA E1,16,00,42,DD,5E,00,DD,351
1030 DATA 6E,01,DD,66,02,E5,ED,5A,3E0
1031 DATA EB,E1,22,E5,9B,B7,C9,DD,5CB
1032 DATA 2A,E9,9B,ED,5B,E7,9B,DD,555
1033 DATA 73,03,DD,72,04,CD,8F,BC,3E1
1034 DATA C3,7A,BC,3D,21,AA,9B,C2,45E
1035 DATA 21,9B,CD,2C,9B,E5,11,6D,3B3
1036 DATA 9C,CD,8C,BC,38,0A,21,D6,3EA
1037 DATA 9B,CD,EA,9A,E1,C3,FD,9A,627
1038 DATA 16,00,1E,12,19,3E,02,77,116
1039 DATA E1,FD,21,EB,9B,CD,11,BC,51F
1040 DATA CD,95,BC,01,00,00,CD,71,35D
```

```
1041 DATA 99,AF,CD,95,BC,CD,3B,BC,52A
1042 DATA 78,CD,95,BC,79,CD,95,BC,52D
1043 DATA 06,10,3E,00,C5,F5,CD,35,310
1044 DATA BC,78,CD,95,BC,79,CD,95,52D
1045 DATA BC,F1,C1,3C,10,EE,C3,8F,4FA
1046 DATA BC,21,EE,9B,CD,C7,99,D0,563
1047 DATA FD,77,01,77,23,FD,36,00,342
1048 DATA 01,CD,C7,99,D4,25,9A,D0,491
1049 DATA FD,34,00,77,23,FD,BE,01,387
1050 DATA FD,77,01,28,19,CD,C7,99,3E3
1051 DATA D4,06,9A,D0,FD,BE,01,CC,4CC
1052 DATA 36,9A,CC,06,9A,28,CA,CD,3FB
1053 DATA F8,99,30,C5,18,E7,CD,C7,519
```

```
1054 DATA 99,D4,25,9A,D0,FD,BE,01,4B8
1055 DATA C4,3E,9A,C4,25,9A,20,B1,3F0
1056 DATA CD,1C,9A,30,AC,18,E7,79,3D7
1057 DATA FE,C8,C8,E5,C5,E6,07,87,5AC
1058 DATA 87,87,C6,C0,67,68,E5,06,44E
1059 DATA 00,CB,39,CB,39,CB,39,C5,3D1
1060 DATA E1,29,29,09,29,29,29,29,1E0
1061 DATA C1,09,C1,04,78,FE,50,20,375
1062 DATA 03,06,00,0C,7E,E1,37,C9,274
1063 DATA FD,77,01,77,23,FD,34,00,340
```

```
1064 DATA FD,7E,00,FE,7F,D8,F5,C5,58A
1065 DATA FD,46,00,78,CD,95,BC,21,3FA
1066 DATA EE,9B,7E,23,CD,95,BC,10,458
1067 DATA F9,C1,F1,C9,FD,34,00,FD,5A2
1068 DATA 7E,00,FE,7F,D8,F5,FD,7E,543
1069 DATA 00,CB,FF,CD,95,BC,FD,7E,563
1070 DATA 01,CD,95,BC,F1,C9,F5,FD,5CB
1071 DATA 35,00,F1,CD,3E,9A,F5,78,438
1072 DATA D6,01,30,03,0D,3E,4F,47,1EB
1073 DATA F1,C9,3D,21,C0,9B,C2,21,456
1074 DATA 9B,CD,2C,9B,E5,11,6D,9C,42E
1075 DATA CD,77,BC,38,0A,21,D6,9B,3D4
1076 DATA CD,EA,9A,E1,C3,FD,9A,E1,66D
1077 DATA CD,80,BC,CD,0E,BC,11,00,3B1
1078 DATA 00,FD,21,EB,9B,CD,80,BC,4AD
1079 DATA B7,20,26,CD,80,BC,47,CD,41A
1080 DATA 80,BC,4F,CD,38,BC,06,10,362
1081 DATA 3E,00,C5,F5,CD,80,BC,47,448
1082 DATA CD,80,BC,4F,F1,F5,CD,32,53D
1083 DATA BC,F1,C1,3C,10,EC,C3,7A,4E3
1084 DATA BC,4F,47,CB,B8,CB,7F,28,447
1085 DATA 06,CD,80,BC,FD,77,02,D5,45A
1086 DATA 7B,E6,07,87,87,87,C6,C0,483
1087 DATA 67,6A,E5,16,00,CB,3B,CB,39D
1088 DATA 3B,CB,3B,D5,E1,29,29,19,362
1089 DATA 29,29,29,29,D1,19,EB,CB,344
1090 DATA 79,20,05,CD,80,BC,18,03,2C2
1091 DATA FD,7E,02,12,D1,14,7A,FE,3EC
1092 DATA 50,20,03,16,00,1C,10,C7,17C
1093 DATA 18,8B,F5,7E,CB,7F,20,06,386
1094 DATA CD,5A,BB,23,18,F5,CB,BF,49C
1095 DATA CD,5A,BB,F1,C9,CD,EA,9A,5ED
1096 DATA F5,3E,0D,CD,5A,BB,3E,0A,36A
1097 DATA CD,5A,BB,F1,C9,7E,FE,61,579
1098 DATA 38,06,FE,7B,30,02,D6,20,2DF
1099 DATA CD,5A,BB,23,10,EF,C3,00,3C7
1100 DATA 9B,E5,21,72,9B,CD,EA,9A,4FF
1101 DATA E1,C3,FD,9A,F5,DD,6E,00,57B
1102 DATA DD,66,01,46,23,7E,23,66,2B4
1103 DATA 6F,F1,C9,00,00,00,00,4D,276
```

```
1104 DATA 9B,C3,09,98,C3,3B,98,C3,458
1105 DATA 4A,9A,C3,13,99,44,45,43,31F
1106 DATA 52,59,50,D4,45,4E,43,52,2F7
1107 DATA 59,50,D4,53,43,52,45,45,2EF
1108 DATA 4E,2E,4C,4F,41,C4,53,43,2B2
1109 DATA 52,45,45,4E,2E,53,41,56,242
1110 DATA C5,00,55,73,61,67,65,3A,2F4
1111 DATA 20,FC,44,45,43,52,59,50,2E3
1112 DATA 54,2C,22,66,69,6C,65,6E,2B0
1113 DATA 61,6D,65,22,2C,22,6B,65,273
1114 DATA 79,A2,45,4E,43,52,59,50,2EC
1115 DATA 54,2C,22,66,69,6C,65,6E,2B0
1116 DATA 61,6D,65,22,2C,22,6B,65,273
1117 DATA 79,A2,53,43,52,45,45,4E,2DB
1118 DATA 2E,53,41,56,45,2C,22,66,211
1119 DATA 69,6C,65,6E,61,6D,65,A2,37D
1120 DATA 53,43,52,45,45,4E,2E,4C,23A
1121 DATA 4F,41,44,2C,22,66,69,6C,25D
1122 DATA 65,6E,61,6D,65,A2,55,6E,36B
1123 DATA 61,62,6C,65,20,74,6F,20,2B7
1124 DATA 6F,70,65,6E,A0,00,00,00,252
1125 DATA *,127684
```

Finally, this little loader hauls it all in to the right place in memory (provided that you haven't got too many roms in there):

```
10 'Loader for RSX's ENCRYPT, DECRYPT,
   SCREEN.LOAD, SCREEN.SAVE
20 SYMBOL AFTER 256
30 MEMORY &97FF
40 LOAD "acu.bin",&9800 : CALL &9800
50 SYMBOL AFTER 240
```

As mentioned a little while back (or a long while if you've just typed that lot in) two other commands are now available: I SCREEN.SAVE and I SCREEN.LOAD. There should be some bar characters in there, but typesetting tend to loose them in the cracks between the keys.

Any road up, these new commands (when followed by a filename) will load or save a screen in a compressed format. Real neat for sending piccys to your friend, 'cos one compressed screen AND this program takes up less space than a normal screen.

The drawback is that it can get a bit too over enthusiastic with a screen that doesn't compress too well, thus creating a file larger than the original. This don't happen too often though, and I look forward to the next dispatch from Swansea.

Meanwhiles, all you video junkies can get your greasy mits and brain cells (greasy brain cells?) round infinite lives for a tape version of Gremlin's Jack the Nipper 2 by good ol' Justin. This is a PASTE[R] job, which means: Rewind the original tape to the start, RUN this little program, insert the original, press play and then any key. See why I shorten it ?

```
10 MODE 1:MEMORY 12345
20 tot=0
30 FOR n=&80 TO &9B
40 READ a$:a=VAL("&"+a$)
50 POKE n,a:tot=tot+a
60 NEXT n
70 IF tot<>2185 THEN PRINT "You've made
   a mitsake in the data.":END
80 LOAD "",&4100
90 CALL &80
100 DATA F3,21,00,41,11,00,01,D5
110 DATA 01,00,02,ED,B0,21,94,00
120 DATA 22,05,01,C9,AF,32,5C,70
130 DATA c3,00,4d,4a
```

And now a phone phreak special, brought to you by Vax and Christopher Price. He suggested the original program, but managed to get a few bits wrong here and there. I fiddled with it until it worked, and the results are here for anyone to type in:

```
10 SOUND 64,1:REM Kill sound queue
40 a$=UPPER$(INKEY$):IF a$="" THEN 40
45 PRINT a$;
50 t=50:v=5
55 IF a$="1" THEN p=90:o=52:GOTO 150
60 IF a$="2" THEN p=90:o=47:GOTO 150
65 IF a$="3" THEN p=90:o=42:GOTO 150
70 IF a$="4" THEN p=81:o=52:GOTO 150
```

```
75 IF a$="5" THEN p=81:o=47:GOTO 150
80 IF a$="6" THEN p=81:o=42:GOTO 150
85 IF a$="7" THEN p=73:o=52:GOTO 150
90 IF a$="8" THEN p=73:o=47:GOTO 150
95 IF a$="9" THEN p=73:o=42:GOTO 150
100 IF a$="0" THEN p=66:o=47:GOTO 150
105 IF a$="*" THEN p=66:o=52:GOTO 150
110 IF a$="#" THEN p=66:o=42:GOTO 150
115 IF a$="A" THEN p=81:o=38:GOTO 150
120 IF a$="B" THEN p=73:o=38:GOTO 150
125 IF a$="C" THEN p=73:o=38:GOTO 150
130 IF a$="D" THEN p=66:o=38:GOTO 150
135 IF a$="X" THEN END
145 GOTO 40
150 REM DTFM tone subroutine
155 SOUND 17,p,t,v:REM Pilot tone,
    linked with next sound.
160 SOUND 10,o,t,v:REM Over tone
165 GOTO 40
```

What is it ? Well, you know the funny tones made by most American phones, Vodaphone/ Cellnet, and some PABXs ? The sort you need to get on to certain phone services (like Cubby Russells' Horoscopes) these days ? Well, these are called DTFM tones, and the program up top makes your humble straddy emulate them.

It is, however, a tricky business. It involves making sure the value of V in the program (line 50) is about half the maximum volume for your machine (3-5 for a 464, 6-10 for a 6128). Also, you have to have the volume turned to about 75 per cent, and some mouthpieces need to be tilted a bit.

Make sure that the mouthpiece is not too close to the monitor or it will pick up a lot of hum. Sometimes it helps if you stand on one leg and chant mantras. Get the picture ?

Apart from that, it works, and you can actually dial with it through system-X exchanges and most PABX exchanges. Maybe you could write yourself a phone directory proggyette ?

Now we'll give the typesetters another chance, and try Justin's relatively successful infinite energy and time for tape Starlight's Red LED.

You can PASTE[R] or forward past the first file and run the routine, take your pick. A side effect of the infinite energy poke is that the energy bar is a wee bit erratic. Ignore it as it isn't a problem. Well, not much of one anyway:

```
10 MODE 0:MEMORY 12345
20 tot=0
30 FOR n=&9080 TO &909E
40 READ a$:a=VAL("&"+a$)
50 POKE n,a:tot=tot+a
60 NEXT n
70 IF tot<>1998 THEN PRINT"UT AW! I'm
   afraid there's a data error.":END
80 LOAD "red2.bin"
90 CALL &9080
100 DATA 21,89,90,22,49,84,c3,00
110 DATA 84,af,6f,67,22,01,06,22
120 DATA 03,06,32,32,08,32,26,08
130 DATA 32,70,09,c3,00,01,4a
```

The bar really isn't a problem, you know.

Now a poke from Justin that was really popular with me old moggie Sol after she'd cleaned out a plate of baked beans. Yes, infinite lives for the tape version of Elite's Thunder Cats. And by now you will have all forgotten about that problem with the bar in Red LED, which (you may remember) isn't much of a problem really.

```
10 MODE 1:OPENOUT "d":MEMORY 1234
20 tot=0
30 FOR n=&7B0 TO &7C2
40 READ a$:a=VAL("&"+a$)
50 POKE n,a:tot=tot+a
60 NEXT n
70 IF tot<>1887 THEN PRINT"Well what
   have we here, a data error.":END
80 LOAD ""
90 CALL &7B0
100 DATA 21,b9,07,22,e3,08,c3,d0
110 DATA 07,21,00,c3,22,04,81,c3
120 DATA d6,69,4a
```

Can you cope with more ? Good, now for infinite energy, lives and energy again for all the bits of Mastertronic's Agent X II.

This is a weird poke because of the fact that this game is a multi load. The program will bury itself in the game and decide when a new section has been loaded and make the pokes accordingly. Quite clever methinks (head swell, widen the doors).

Oh by the way, if you don't want to use the pokes here are the passwords to the different levels:

For Level 2-LOUDHAILER GOOSE
For Level 3-PITIFUL LOBSTERS

You are given a password at the end of level 3, but it seems to have no use at all. In case you wish to know what it is, here it is:

For Level ????-SMALL CHANGE GOT RAINED ON.

That just about wraps it up I think, pheew.

```
10 MODE 1:MEMORY 12345
20 tot=0
30 FOR n=&100 TO &13F
40 READ a$:a=VAL("&"+a$)
50 tot=tot+a:POKE n,a
60 NEXT n
70 IF tot<>5783 THEN PRINT "Whooops!
   You'd better check the data.":END
80 LOAD "",&4000
90 CALL &100
100 DATA f3,21,00,40,11,72,01,01
110 DATA 00,03,ed,b0,21,20,01,22
120 DATA 57,03,3e,c3,21,2c,01,32
130 DATA 66,03,22,67,03,c3,72,01
140 DATA af,32,81,9a,c6,c9,32,29
150 DATA 98,c3,00,70,2a,9f,03,e5
160 DATA 7c,fe,40,3e,c9,20,04,32
170 DATA da,5c,c9,32,9a,5d,c9,4a
```

Oh no, we've got two more to come. Infinite lives for Electric Dream's Firetrap. Tape again. PASTE[R]. Getting predictable, isn't it ?

```
10 MODE 1:MEMORY 12345
20 tot=0
30 FOR n=&BE00 TO &BE27
40 READ a$:a=VAL("&"+a$)
50 POKE n,a:tot=tot+a
60 NEXT n
70 IF tot<>4381 THEN PRINT"Oh dear,
   there's a data error.":END
80 LOAD ""
90 CALL &BE15
100 DATA f3,3e,c3,21,0f,be,32,24
110 DATA ae,22,25,ae,c3,c5,ac,d5
120 DATA af,32,0a,6d,c9,3e,8f,32
130 DATA 7f,41,3e,b3,32,cc,41,3e
140 DATA f9,32,2c,42,c3,05,40,4a
```

Last one this. Can you stand the excitement ? Well, this is for Domarks' Star Wars. Eat your heart out Ronnie Reagan.

Forward past the first file and run the routine. While it's loading, go out and see Spaceballs at your local flicks:

```
10 MODE 0:MEMORY &1FFF:BORDER 0
20 FOR i=0 TO 15:READ c:INK i,c:NEXT i
30 LOAD "!",&C000
40 LOAD "!",&2000
50 FOR i=0 TO 15:INK i,0:NEXT i
60 LOAD "!",&C000
70 POKE &63C1,0
80 POKE &63C5,0
90 POKE &63C6,0
100 POKE &63C7,0
110 CALL &C1E6
120 DATA 0,26,6,20,26,10,2,11,26,13,
    15,23,26,24,16,23
```

Unfortunately another version of Speedlock (spit!) has just arrived on the scene. As with the previous version, which still isn't redundant, it is possible to write a routine that can be used for all games using this type of speedlock (spit!) with a few extra lines added on to the end.

Justin has entitled it the PRODDER, as opposed to the poker. It therefore follows that the code tacked on the end is the PROD. Keep this one safe, 'cos we'll probably be using it a lot in the future (until they change speedlock {split! [I'm running out of brackets and spittle]} again):

```
5 REM The 'PRODDER' V2.0 (c) ACU 1987
10 MODE 1:MEMORY 12345
20 LOAD ""
30 sum=0:addr=&BE00
40 READ a$:a=VAL("&"+a$)
50 IF a>256 THEN GOTO 80
60 POKE addr,a:sum=sum+a
70 addr=addr+1:GOTO 40
80 IF sum<>a THEN PRINT"Oh No! You had
   better check the data.":END
90 CALL &BE00
100 DATA f3,21,0f,be,3e,c3,32,32
110 DATA bc,22,33,bc,c3,33,32,cd
120 DATA 37,bd,21,1b,be,22,5c,34
130 DATA c3,0f,34,dd,2a,57,be,ed
140 DATA 5b,59,be,2a,5b,be,7d,32
150 DATA 2f,be,7c,32,30,be,cd,00
160 DATA 00,2a,5d,be,11,3e,be,73
170 DATA 23,72,2a,5f,be,e9
180 '
```

Now to whet your appetite (and justify the use of this routine), here is a PROD for Freddy Hardest. Have fun:

```
1000 DATA 21,00,80,e5,3a,00,08,b7
1010 DATA 3e,b7,28,09,32,75,66,c6
1020 DATA 0c,32,dc,81,c9,32,fa,8a
1030 DATA c9,5b,aa,00,01,ea,a9,0a
1040 DATA ab,85,aa,28d3
```



Now, afore ye go, here's that BR to English mini-dictionary I was on about:

VAX'S GUIDE TO BRSPEAK

"Bing! Bong! We apologise for the late arrival/cancellation of your train, this is due to:"

No guard being available
He is available, but drunk.

Shortage of rolling stock
Excess of laughing stock.

Operational difficulties
Train crash.

Severe operational difficulties
Big train crash.

Fault requiring fitter's attention
The guard is very drunk, very heavy, and we need help to shift him.

An incident at ...
Someone got squashed.

An earlier incident at ...
And he's taking a long time to scrape off the rails.

Engineering works
Oh no it doesn't.

Earlier difficulties at ...
That one was late too.

Leaves on the line
Where the hell is that train ?

Points failure
Eric just got 21 points on the pools and has jacked in his job.

Line failure
A line of white powder, a mirror and a straw caused driver failure.

Overhead power failure
Changing the fuse is way over the electrician's head.

Vandalism
Bored passengers have smashed up the train.

Vandalism to overhead lines
Bored passengers have strung up the driver and guard.

Our mind-boggling inefficiency
This is my last day in this crummy station, and I don't care if I do tell the truth.

"British Rail wish to apologise for the delay, and any inconvenience it may have caused. Bing ! Bong ! Christ, Brian. Look at all those mug commuters. Will they never learn ?"

See y'all next month, if the train has pulled into Brentwood by then.

Vax 'n' Suz



Are you afraid to admit your foibles to your computer? Rupert Goodwin isn't...

FIRST there was adventure to tax your intelligence. Next in line were the arcade games that tested your physical reactions. Then came Trivial Pursuit to plumb the depths of your memory. What attributes of the human persona remain untouched by the computer game? None, as of now.

Scruples has made it to the small screen to test and expose your conscience. Any claims you might have to being an all-round good guy (or gal) will be severely strained.

The original Scruples is a board game that can be more embarrassing than misspelling chrysanthemum in Scrabble, more divisive than the aforementioned Trivial and more revealing than Monopoly-inspired rampant greed.

It involves friends and loved ones posing the sort of questions that sitcoms are made of. For example, if you were in a public building and desperately needed to go to the loo, and only the ones for the opposite sex were open, would you use them?

More to the point, would you admit it to your mother? Even more to the point, would your mother admit it to you?

The mechanics of the non-computer game ingeniously incorporate inquisition, indecision and social interaction. The questions come in a set of Dilemma cards, which are dealt out five to a player. Each participant also gets an Answer card which can be Yes, No or Depends.

Every turn, a player picks a Dilemma and chooses another player who has to answer the question. If the second player's answer matches the quizzer's Answer card, then the first person wins and can throw away the Dilemma card.

If the answers differ, the first player merely exchanges the Dilemma card for a different one. The winner is the one who manages to get rid of all Dilemma cards first.

Not nasty enough for you, huh? Whatever the result of a question, the asker can challenge the answer if he felt the victim was a little untruthful. He then has to give an answer he considers correct, and the rest of the players vote.

If the challenger wins, he gives a Dilemma card away to the person who gave the incorrect answer. If the vote goes the other way, the loser gets a card from the winner. A lot depends on just how plausible an answer can be made.

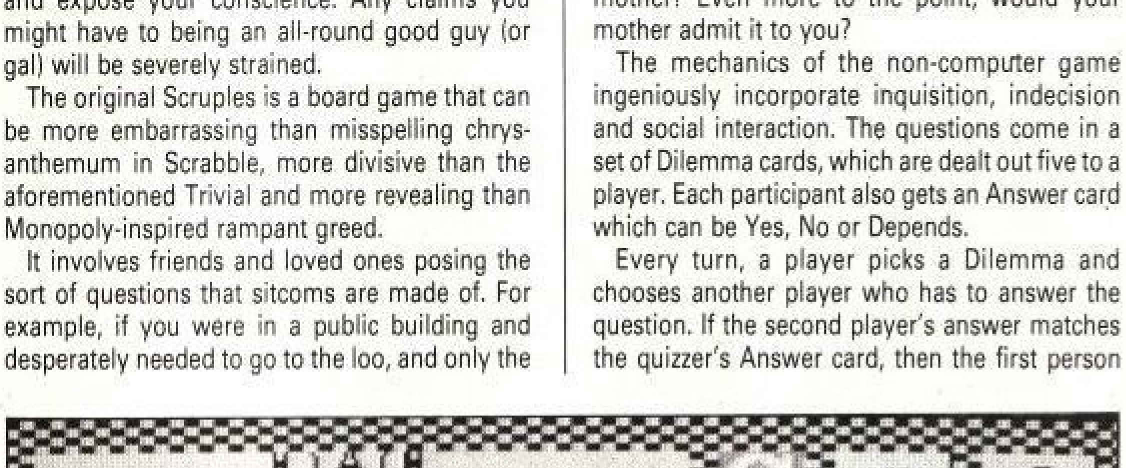
No doubt you can see how, with questions of an appropriate squirm factor, the potential for discomfort is pretty high. But with so much riding on human interaction, how can a computer version of the game have anything to offer?

Leisure Genius have programmed the machine with what Douglas Adams called Genuine People Personality (Arthur Dent: "Sounds awful" Marvin: "It is"). Within the game live 64 different opponents for you to choose from, and each has a reasonably complex set of traits.

There are 12 aspects covering such things as trust, honesty, integrity and personal relationships. These are represented as a bar chart from 5 (strong) through 0 (average) to –5 (nonexistent).

Once you've selected your computerised foes by face and named them, you have to enter each human player by setting the 12 traits. The computer checks that there's nothing obviously amiss (honesty +5, trust –5, for example) and smooths out any anomalies.

Up to eight players can participate, any or all of



which (whom?) can be run by the computer. Their faces are lined up, wanted poster-wise, on the right hand side of the screen.

One of the weirder aspects of the game is the twitching that goes on here; eyebrows wobble, mouths grimace and brows furrow. All part of the GPP, folks, and during times of stress it can be quite heartening to see the computer look worried. Serves it right, too.

By the way, the physogs tend to represent the personality; someone who winks incessantly at you is going for the adult options (there is a little wife swapping here), and those who wear dark glasses are not to be trusted. Know your cliches.

As can reasonably be expected from the company that produced a true classic in Computer Scrabble, the graphics are clear and distinctive. There are a few signs of a disappointing lack of attention to detail - sorry if I sound like my mother but having "beleive" in one of the main game prompts isn't very impressive.

Likewise the bar charts that appear to show personality have no keys on them to show what reading is what trait. Not even a number. As you've only got three seconds to see them, this is a useless feature.

A joystick suffices to control everything except typing in names, and providing you can move a pointer over a picture you will have no problems in running the thing.

There are only two points of annoyance. One is the lack of oops options - if you make a mistake when answering a question or filling in a personality you never get a chance to alter or retract.

And the second is that questions vanish at inconvenient times during the challenge stage - the state some people get in during this game ruins their memory and not being able to refer back is genuinely frustrating

Out to get you

The computer does its best to be real people. If you consistently reply out of character, it updates its internal idea of your warm, outgoing, friendly personality you told it about to include the distressing signs of paranoia it can't help but notice. Yes, even your computer is out to get you.

And if any of the computer-controlled people get too many cards because you're getting close to understanding them, then they start to answer out of character until the odds even a little.

Initially disturbing it might be, but seeing a grandmother admit to bribery and a liking for blue videos broadens the mind if nothing else.

Does it work? It's a valiant attempt. The things a computer should do well, like managing the cards and keeping everyone in order, are done if not with panache then with aplomb.

The subtler aspects of psilicon psychology are more difficult to judge, but there's enough depth in the computer-generated personality to give more than a few good games. Don't expect them to add anything of substance if you've got more than a couple of live humans to play with though; the genuine article is much shiftier.

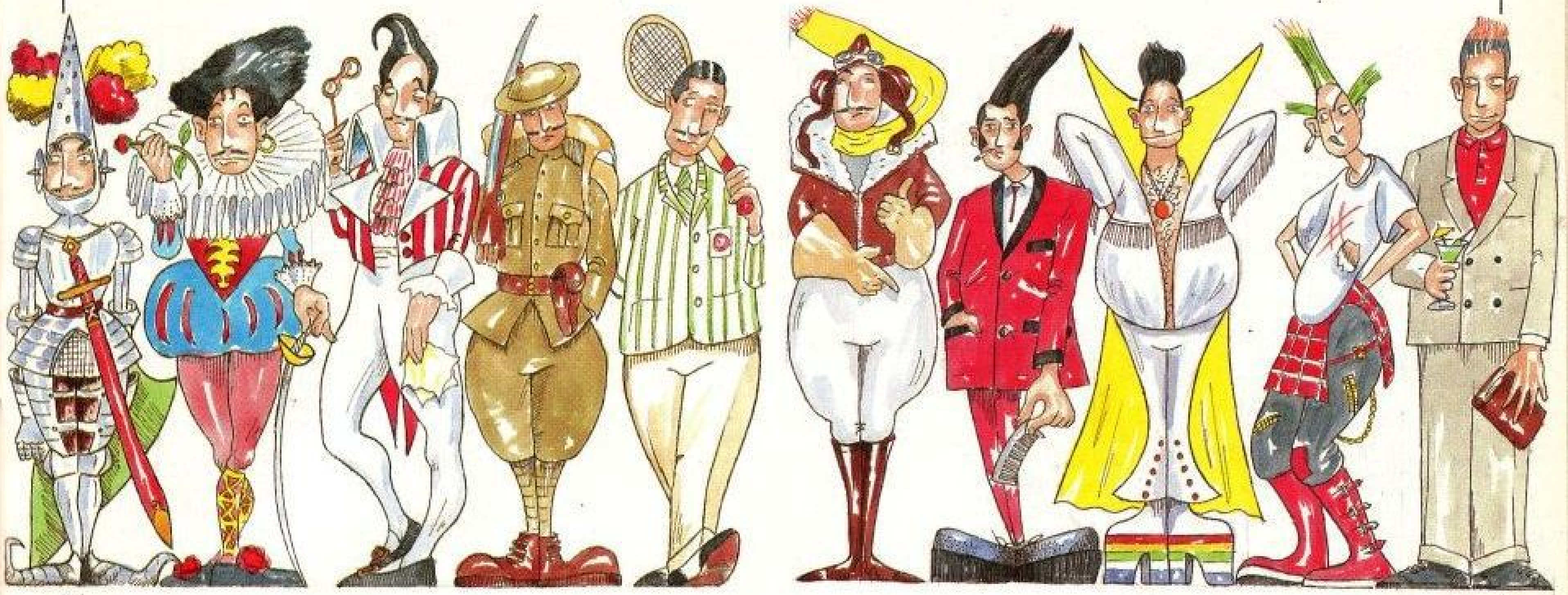
Perhaps the real weakness is in the questions provided and the reasons you can choose from to back up a challenge. There are about 300 questions and each has about 12 reasons to argue.

More than once I wanted to pick a bone with the computer about a choice, and my reason wasn't on the list. For example... well, the question is too outrageous for a family magazine, but I wanted to say no for health reasons. The computer insisted on dragging morals into it.

I quibble. Scruples is a fine program, and the perfect excuse to get the computer going during a party. Less fun in the quiet solitude of the traditional hacker's bedroom, but get a few friends around the table and things will get interesting. Guaranteed. Just make sure they are either very good friends or ones you wouldn't mind losing...

Scruples is available from Virgin Games 2-4 Vernon Yard, Portobello Road, London W11 2DX. It costs £9.95 on tape and £14.95 on disc.





Family fortunes

David Foster traces his ancestors with the help of David Computer Software

GENEALOGICAL... tracing family descent. That is the definition given to the word by the Concise Oxford Dictionary. Genny is a database, but not just an ordinary database for keeping Abba before the Beatles or other records. It is specifically for the purpose of assisting with the popular pastime of tracing your (or for that matter anyone else's) ancestry.

I'm no expert on genealogy, though it has interested me for some time. I have relations who, over the years, have sweated away and produced Family Trees for both sides of my family, doing it the hard way, with index cards and reams of notes.

Genny, is supplied on a single disc and comes with a 20 page manual. The program will run on any of the CPC models as long as they have a disc drive. With a single drive you are limited to 1,000 records on each side of the disc, but with two drives, you may have as many 1,000 record files as you wish.

It is not possible to inter-relate data from one database with that from another, except by making a note of details and loading the other database and then searching for the information. Generous provisions are made for up to 10 marriages and (perish the thought!) 19 children for each person.

The manual has been composed with a word processor and printer, rather than being typeset, but it is well produced and printed. With only 20 pages, the lack of an index is no real handicap. The first half of the manual describes the operation of each module and the remainder the form in which data should be entered, a description of the extra programs provided on the disc and a tutorial that makes use of the demonstration data file.

The program is written in protected Basic and consists of a number of separate modules. It isn't the fastest program you have ever seen and undoubtedly the speed could have been improved had it been written in machine code.

Having said that, delays are only relatively short while it is searching and sorting through data and probably are of little consequence to most people.

There is nothing flash about the program's presentation. You won't find any pop-up windows or snazzy graphics, but it is neatly laid out and arranged. It also appears to be well trapped for errors and the overall impression is one of workmanlike efficiency.

Before seeing what it does, perhaps it is worth considering what is required when tracing ancestors and the problems involved with doing so.

It appears that over the years two distinct methods of charting families have evolved. The first is to take a person and then list their offspring, and, in turn, their offspring and so on until you reach the present day. This is known as a generation chart.

The second method is the reverse. You take a person and trace backwards through their parents and, in turn, through their parents and so on. This is known as a tree chart. Genny can produce both sorts of chart.

In most cases it is not a simple task to collect full details of every member of a family. It might require a considerable amount of travel to study registers of births, marriages and deaths in far flung places, and frequently you might find people's names that appear to tie in with certain dates, but for whom insufficient information is available to categorically state that they are a relation.

Given time, and a lot of research, you may eventually gather sufficient information from different sources to positively tie them in. Doing this by hand, using card indices and notes is a slow and laborious process – and inefficient in that it is not an easy task to make sure that you have collected all possible references to a person or a date.

This is where Genny comes in. Once you have entered all the information you possess about people, you may search the records for details that might link them with someone else, perhaps a date, a place of birth, or a link with a common family name. This is a very simplistic view of what is involved, but should give some idea of the processes.

Using Genny

The main suite of programs consists of Geninit, Genwrite, Genread and Genchart, which deal with initialisation, putting in information, reading existing information and displaying it. Modules may be called from the main loader program Genny and any of the other modules can be called from within any module.

Because the whole program is not resident in memory at the same time, there is a considerable amount of disc accessing when another module is loaded. It is best to try and adopt a logical approach to minimise the swapping between programs.

A number of extra programs are provided on the disc. They are not an integral part of the main program, but provide useful extra facilities. Printset allows you to set the print style to be used by the printer, before entering Genny. Genbrief allows you to create a five generation chart from information keyed in to the program directly. Useful if you just want to produce a chart from known information, rather than have to enter it all in to the main database.

Genlist provides analphabetical print out of all subjects in the database and Setkeys lets you configure the function keys to produce words or phrases at a single key press.

Having first created a new database with the

Geninit option, you may specify if two drives are to be used, in which case all data is stored on the disc in drive B. You may also enter common names or words into the Token lists that Genny supports.

Data is saved in a compacted form to make the most of available disc space. Genny automatically handles the compaction of dates and relationships to other people, but it is also possible to increase efficiency by specifying any names or words that you know will be used repeatedly throughout the database.

Every time these words are entered into the database, they will automatically be stored in compacted form. If new words are added to these lists at a later date Genny will automatically tokenise any existing occurrences of the words in the database.

Having created a new database, it would seem logical to start entering information, and this is done by selecting the Genwrite option. On selecting the Write card option, you are prompted for details of the person, such as name, sex, birth and baptism dates, together with details of parent names and birthplace, marriages and children.

The only information that is compulsory is the surname of the person; unknown details may be passed over by pressing Enter. The manual gives details of how you may enter certain details to make things easier for yourself at a later date.

Once all the questions have been answered you have the opportunity to correct any mistakes before the record is stored in the database. From Genwrite you may also delete existing cards that are no longer required and edit any existing cards, to either correct errors or add further information.

Genread allows you to search for specific records, either by reference number, by the name of the person, or by searching for specific details in the complete database, in which case only those records that match the search criteria will be listed.

You can search for records by name or place name. If the surname was given, then all records of people with that surname will be selected. Place name is a bit of a misnomer as it also allows you to search for details in the "comments" field of records.

If you keep a note of the occupations of people in the comments field, you could then search for all records that match a given occupation, for example. Alternatively, you can just browse through the database a record at a time

Output from these options may be sent to the screen or to the printer and this may be changed at any time. Existing records may be edited in much the same way as with Genwrite.

```
SMITH GEORGE 17700000 Ref 57
F: SMITH GEORGE ARTHUR 17400000
M: YOUNG ELIZA 17450000

        SMITH JOHN 17930000 Ref 150
        F: SMITH GEORGE 17700000
        M: ROBERTS MARY 17750000

                SMITH JOSEPH 18250000 Ref 153
                F: SMITH JOHN 17930000
                M: YORK JOAN 18050000

                        SMITH GEORGE 18500000 Ref 61
                        F: SMITH JOSEPH 18250000
                        M: PETERS JEAN 18300000

                        SMITH MARY 18520000 Ref 65
                        F: SMITH JOSEPH 18250000
                        M: PETERS JEAN 18300000

                        SMITH ERNEST 18550000 Ref 119
                        F: SMITH JOSEPH 18250000
                        M: PETERS JEAN 18300000

        SMITH ANNIE 17950000 Ref 151
        F: SMITH GEORGE 17700000
        M: ROBERTS MARY 17750000

                JONES ALBERT 18250000 Ref 159
                No data

No further data
```

Figure I

```
TREE CHART (BIRTH BRIEF) FOR
061 SMITH GEORGE 18500000
|                                                057 SMITH GEORGE 17700000
|                               |--------------  149 ROBERTS MARY 17750000
|                               150 SMITH JOHN 17930000
|                   |---------- 152 YORK JOAN 18050000
|                   |           |--------------  154 UNKNOWN 00000000
|                   |                            155 UNKNOWN 00000000
|------------------ 153 SMITH JOSEPH 18250000
                    160 PETERS JEAN 18300000
                    |                            000 UNKNOWN 00000000
                    |           |--------------  000 UNKNOWN 00000000
                    |---------- 161 PETERS ALBERT 17990000
                                162 BELL AGNES 1807000
                                |--------------  000 UNKNOWN 00000000
                                                 000 UNKNOWN 00000000
```

Figure II

The final module is Genchart. Again you have the option to select between listing on screen or to the printer. The main uses of Genchart are to allow you to create listings in a variety of formats. In all these options you must select a starting point for the listing by specifying a reference number.

Listings may be made following the male or female line of descent, in which case full details of each person will be provided, or you may elect to create a generation chart which will list out brief details of all persons descended from the target record, over a period of four generations (See Figure I).

The final option with Genchart creates a tree chart (see Figure II for an example). Having specified the person to start with, the program then creates a tree, working backwards, covering four generations. Once the tree has been printed, you are offered the opportunity to print out the full details for all persons in that tree.

Sufficient detail is given in both generation and tree charts to allow you to continue by specifying a further reference, to expand the chart.

That covers the main features of Genny. If you are a keen genealogist, it has got to be worth considering, as there is no doubt that while some features could be handled by a normal database, there are many others that are specially written for the purpose and which could not easily be reproduced.

It isn't cheap, but it is written specially for the job and it would appear that a good support service is available.

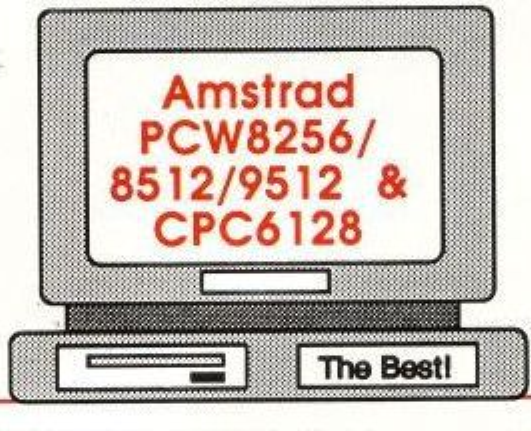
Genny is also available for the Amstrad PCW range and PC compatible computers. DCS have an arrangement whereby they will transfer data from one format to another in the event that you ever change to one of these computers, so there is no danger of having to key in all the information again.

DCS also provides a free upgrade service for latest versions of the program as and when they become available. A quarterly newsletter is available giving you regular information on aspects of the programs.

Name: Genny – Genealogical Database
From: David Computer Software
38 South Parade
Bramhall
Stockport
SK7 3BJ
Tel: 061 439 4841
Cost: £35 inclusive (£27.00 to members of family history societies)

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Like watching the paint dry . . .

Untie your computer by letting it print to ram, and then print from the ram to the paper. Sounds exciting? Rupert Goodwins doesn't agree

PRINTER buffers are the only peripherals that are as boring as their name suggests. Worthy devices, not without their uses, they sit there and do nothing. No flashy graphics, nary a beep of audio, three switches if you're lucky and the deluxe model might even hae a little red light or two.

They are so boring. If you put one next to a Jethro Tull LP the record would make an excuse and leave.

Let me explain, therefore, why printer buffers, like the Microstuffer, have a right to life. Their function is simple – they take any information that the computer might want to send to a printer and store it, passing it on as the printer needs it. A good description of a printer cable, you might think.

But printer buffers have two staggeringly uninteresting advantages; they have a capacious memory and they are fast. We are talking elephants on rollerskates.

A normal DMP 2000 type of printer is slow compared to the computer. It can manage maybe 80 characters a second, or 30 in a decent quality typeface. The computer can send characters to the printer much faster, but as the printer takes its time to commit the pearls of wisdom on to paper the computer ends up hanging around, doing nothing except waiting for the printer to finish. What a waste of a computer.

The Microstuffer solves this problem. It sits between the computer and the printer, and takes information just as fast as the computer can send it. It simultaneously sends the information to the printer. And as the Microstuffer has 64k of memory, it can take fair-size documents.

When the computer has finished sending the information it can go away and do something else, and the Microstuffer gets on with printing. You can even turn the computer off.

All lit up

The Microstuffer comes with a power supply (one more thing to find a plug for), and has a captive lead which plugs into the printer. It's also got a Centronics-type socket into which you plug your computer's printer cable. Three switches on the front, and three (no expense has been spared) red LEDs complete the complement of features.

Aptly finished in a tedious light beige, the Microstuffer is small and light enough to be velcro'd to the side of your printer.

The three switches on the front are power on/off, CLR and REPEAT. Once again the forces of vowelophobic darkness have triumphed; no man has yet explained to me why the CLR button isn't called Clear. 'Cos that's what it does.

It is not unknown, even among the highest powered computerfolk in the land, to send something to a printer and immediately regret it. So the Clear button allows you to junk the stuff in the buffer's memory without wasting paper. (I suspect we've all got so used to CLR that if we saw the word Clear on a computer we'd have forgotten what it means. Is this progressive English? – Ed). The Repeat button . . . repeats. Press



this, and you'll get a second copy of everything in the buffer. Useful for form letters, or multiple copies of a document where you don't want to tie up your computer (I like tying up my computer, but then I'm weird).

Inside the buffer are two 64k by 4 bit ram chips, together making up 64k bytes of ram. There's a microprocessor, and a few bits and bobs to keep the whole thing going. It's sturdily made, albeit without a screw or nut and bolt in sight. Glue and plastic only. The LEDs on the front are PWR (the power LED – see diatribe above), Repeat (comes on when a repeat is due) and Full.

The Full LED is the only remotely interesting item in the entire Microstuffer. It blinks. When there's only a k or so of text in the buffer, it blinks slowly, and as the Microstuffer gets more chocka it blinks faster. At 60k it goes frantic, and if you try and send more than 64k the Repeat light comes on and the buffer doesn't accept any more characters until the printer takes the pressure off.

The buffer works. The handbook (untranslated from the American – it talks about plugging in to 110 volt mains, tut tut tut) claims that the Microstuffer can accept data at 8000 characters a second, a speed few computers can match. My CPC 664 and Protext managed 1,000 characters a second, and my AT clone 2,000, so a 16k document took 16 seconds to leave the Arnold.

Not so bright

The only thing I would worry about, and it's a major problem, is the power supply. It's an external box with a built-in 13A plug, but it's one of the very cheapest Hong Kong multivoltage types.

As a result, you can set a switch on it to 12 volts. That's 5 volts more than the buffer is designed to use, and might cause problems. Similarly, you can swap the polarity of the lead over if you pull it out of the power supply (easily done), and this would be much more serious.

If you do pull the lead out, there are no markings on it to show you which way round to plug it back in again. Nasty. The UK distributors of Microstuffer should find a more appropriate and safer power supply at once.

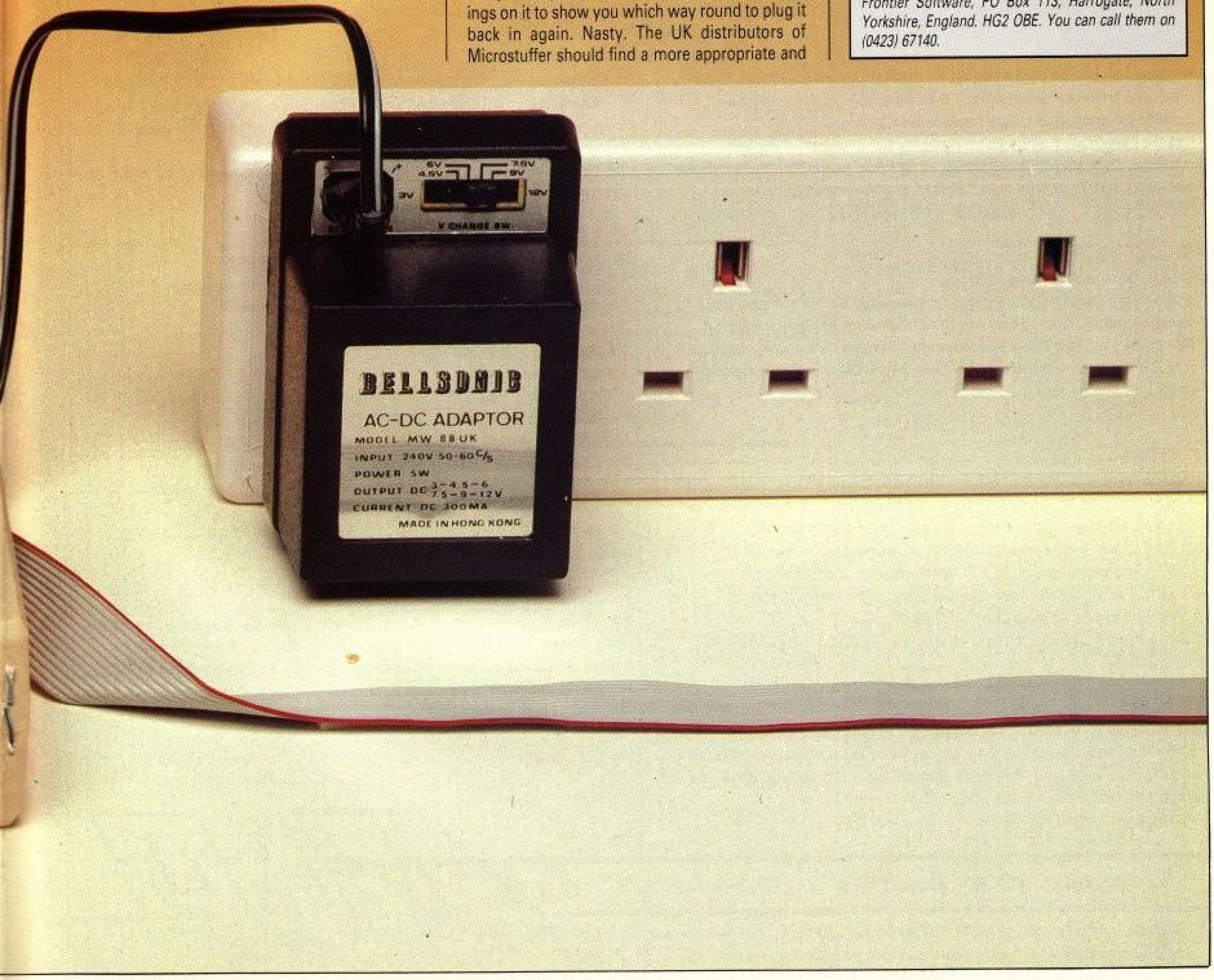
Apart from that, the Microstuffer does its job well. The only question is whether you would pay £49.95 for the benefits you get from a printer buffer.

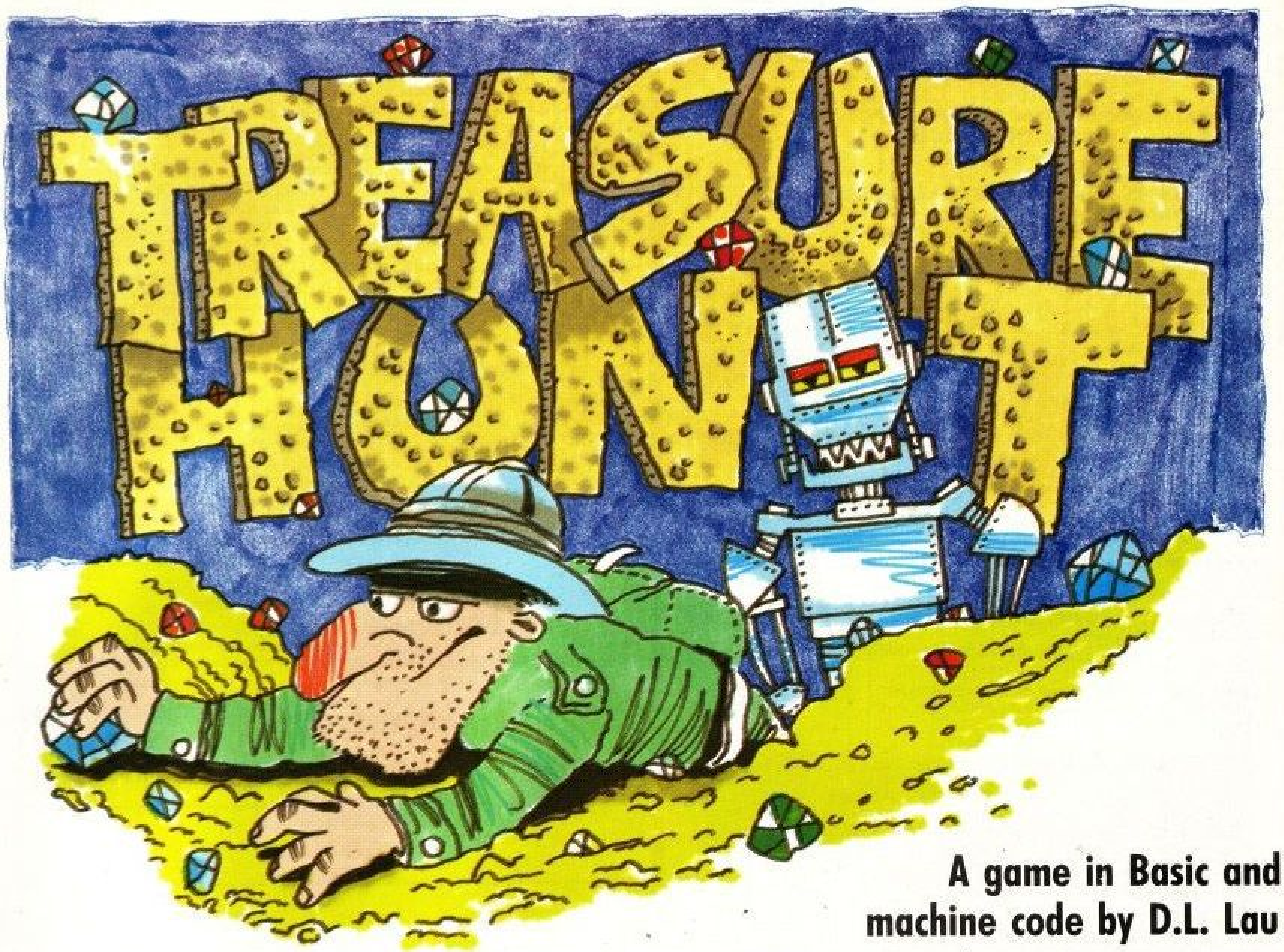
As the buffers built into printers get bigger, the additional time saved by external buffers becomes less important. And if you only print out a few documents a week, I wouldn't think a buffer would be useful.

But if you have a laser printer, or do lots of graphic dumps (both of which can involve the transfer of huge chunks of data), then the Microstuffer could make your life a lot more bearable. The same goes if you have a very slow printer (like a daisywheel).

I'm going to take the standard reviewers' cop-out clause. If you think that a printer buffer would be useful to you, then the Microstuffer is as good as any. If you don't, then the Microstuffer won't change your life.

The Microstuffer costs £49.95 and is available from Frontier Software, PO Box 113, Harrogate, North Yorkshire, England. HG2 OBE. You can call them on (0423) 67140.





A game in Basic and machine code by D.L. Lau

IMAGINE a place just full of diamonds. All you need to do is run around collecting them. Sounds a bit too easy doesn't it?

Well there *are* one or two hazards – rocks which drop from above, balls which fly sideways, and evil hunting balls which can climb down ladders. Still the glittering jewels are worth the risk. Dare you take it?

```
10 REM          Treasure Hunter
20 REM            By D.L.Lau
30 REM        Completed on 17/08/87
40 REM
50 SPEED KEY 8,1:KEY 138,"mode 1:pen 1:l
   ist ":KEY 139,"edit "
60 MEMORY &7FFF :DEFINT a-z
70 INK 0,0:BORDER 0:INK 14,9:INK 10,3:IN
   K 14,1,26
80 GOSUB 2190
90 GOSUB 1960
100 pchr=&8700:pscr=&8729:flag=&8300
110 count=&8311:jflg=&8202:nodi=&8312
120 noc=&8313
130 FOR f=&8656 TO &8667:POKE f,1:NEXT
140 ENV 1,25,30,5,25,-2,2:ENT 1,20,5,1,2
    5,-5,1
150 ENV 2,25,20,10,25,-2,2:ENT 2,20,-5,1
    ,35,10,5
160 ENV 3,25,18,1:ENT 3,50,-20,8
170 ENV 4,15,1,5:ENT 4,50,20,9
180 ENV 5,50,2,2:ENT 5,50,5,2
190 GOTO 2080
200 POKE noc,0:scr=1:li=5:dif=0:sc=0
210 CLS
220 ON scr GOSUB 960,970,980,990,1000
230 adr=&8512:FOR f=0 TO 17:READ byte$
240 FOR g=1 TO 18:POKE adr,VAL(MID$(byte
    $,g,1))
250 adr=adr+1:NEXT g,f
260 REM **** Initialising variables ****
270 sc=sc+PEEK(noc)
280 FOR f=&8253 TO &8272 STEP 7:POKE f,&
    40:POKE f+1,&80:NEXT
290 POKE &8200,23:POKE &8201,10:POKE &82
    02,0:POKE &8203,&4C:POKE &8204,&86  .
```

```
300 POKE &8206,0:POKE &8211,0
310 POKE noc,0
320 REM ********* print screen *********
330 CALL pscr
340 RESTORE 390
350 FOR f=0 TO dif:READ a,b,c,d,e
360 POKE &8250+f*7,b:POKE &8251+f*7,a:PO
    KE &8252+f*7,c:POKE &8255+f*7,e:POKE
    &8256+f*7,d
370 CALL pchr,a,b,&8040:NEXT
380 POKE &8310,dif
390 DATA 2,7,1,&85,&24,17,11,3,&85,&7b,6
    ,15,1,&85,&b8,9,19,3,&86,3,3,23,1,&8
    6,&45
400 PEN 15:LOCATE 2,4:PRINT STRING$(18,C
    HR$(154))
410 LOCATE 2,25:PRINT STRING$(18,CHR$(15
    4))
420 FOR f=5 TO 24:LOCATE 1,f:PRINT CHR$(
    149):LOCATE 20,f:PRINT CHR$(149):NEX
    T
```

```
430 RESTORE 440:PEN 12:FOR f=1 TO 4:READ
     a,b,c:LOCATE a,b:PRINT CHR$(c):NEXT
440 DATA 1,4,150,20,4,156,1,25,147,20,25
    ,153
450 LOCATE 1,1:PRINT CHR$(11)
460 CALL pchr,10,23,&8000
470 PEN 12:LOCATE 3,1:PRINT"Hi        Sc"
480 LOCATE 5,1:PEN 4:PRINT USING":###";h
    i:LOCATE 14,1:PRINT USING":###";sc
490 PEN 2:LOCATE 3,2:PRINT"Screen";:PEN
    1:PRINT scr
500 FOR f=1 TO li:CALL pchr,f+12,2,&8000
    :NEXT
510 REM ********* main loop ***********
520 POKE flag,0
530 LOCATE 14,1:PRINT USING":###";sc+PEE
    K(noc)
540 IF (INKEY(69)=0 OR JOY(0)=1) AND PEE
    K(jflg)=0 THEN CALL &8771
550 IF PEEK(flag)=1 THEN 710
560 IF (INKEY(36)=0 OR JOY(0)=8) AND PEE
    K(jflg)=0 THEN CALL &879B
570 IF PEEK(flag)=1 THEN 710
580 IF (INKEY(71)=0 OR JOY(0)=2) AND PEE
    K(jflg)=0 THEN CALL &87C1
590 IF PEEK(flag)=1 THEN 710
600 IF (INKEY(45)=0 OR JOY(0)=4) AND PEE
    K(jflg)=0  THEN CALL &87E8
610 IF PEEK(flag)=1 THEN 710
620 IF INKEY(47)=0 OR JOY(0)=16 THEN CAL
    L &8847:IF PEEK(flag)=2 THEN 800
630 IF PEEK(flag)=1 THEN 710
640 CALL &8817:IF PEEK(flag)=1 THEN 710
```

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```
650 FOR f=1 TO (5-scr)*30:NEXT
660 CALL &88A6,INT(RND*18)+6:IF PEEK(flag)=1 THEN 710
670 CALL &8913,INT(RND*18)+2:IF PEEK(flag)=1 THEN 710
680 CALL &8962:IF PEEK(flag)=1 THEN 710
690 GOTO 520

700 REM ********* Man killed **********
710 SOUND 5,150,80,0,5,5
720 FOR f=1 TO 26:INK 1,f:FOR g=1 TO 50:NEXT g,f:INK 1,24
730 CALL pchr,13,2,&8000
740 li=li-1:IF li=0 THEN 760
750 CLS:GOTO 260
760 PEN 14:LOCATE 7,14:PRINT"GAME OVER"
770 FOR f=1 TO 5500:NEXT
780 IF sc>hi THEN hi=sc
790 GOTO 2080
800 REM ******* screen completed ******

810 INK 0,26,0
820 FOR f=1000 TO 20 STEP -30:SOUND 1,f,10,0,1,1:NEXT
830 scr=scr+1
840 INK 0,0
850 IF scr=6 THEN scr=1:dif=dif+2:IF dif=6 THEN 880
860 li=li+1:IF li=6 THEN li=5
870 GOTO 210
880 MODE 1:PEN 1:LOCATE 13,1:PRINT"That's it folks!"
890 FOR g=1 TO 10
900 FOR f=1 TO 23:LOCATE 1,1:PRINT CHR$(11):NEXT
910 FOR f=1 TO 23:LOCATE 1,25:PRINT CHR$(10):NEXT
920 NEXT
930 sc=sc+PEEK(noc)
940 GOTO 780
950 REM *******************************
960 INK 15,24:POKE nodi,15:RESTORE 1020:RETURN
970 INK 15,16:POKE nodi,18:RESTORE 1210:RETURN
980 INK 15,20:POKE nodi,20:RESTORE 1390:RETURN
990 INK 15,18:POKE nodi,21:RESTORE 1580:RETURN
1000 INK 15,26:POKE nodi,24:RESTORE 1770:RETURN
1010 REM ********* screen 1 ************
1020 DATA 0400000400000000400
1030 DATA 0003000000000300003
1040 DATA 1112111111111211112
1050 DATA 0002000000000200002
1060 DATA 0402000000040200402
1070 DATA 3003000003000300003
1080 DATA 2111111121111111112
1090 DATA 2000000002000000002
1100 DATA 2004000002040000042
1110 DATA 3000000003000300003
1120 DATA 2111111111111211111
1130 DATA 2000000000000200000
1140 DATA 2000040000040200400
1150 DATA 3003000000000300000
1160 DATA 1112111111111211111
1170 DATA 0002000000000200000
1180 DATA 4002000000040200400
1190 DATA 0003000000000300000
1200 REM ******** screen 2 *************
1210 DATA 0040040000040000400
1220 DATA 0300000003000030000
```

```
1230 DATA 1211111112111121111
1240 DATA 0200000002000020000
1250 DATA 0200400002004020040
1260 DATA 0300000003000030000
1270 DATA 1211111112111111111
1280 DATA 0200000002000000000
1290 DATA 4200000042000400040
1300 DATA 0300003003000000003
1310 DATA 1111121111111111112
1320 DATA 0000020000000000002
1330 DATA 0040020000400004002
1340 DATA 0000030000030000003
1350 DATA 1111121111121111111
1360 DATA 0000020000020000000
1370 DATA 4004020000020400004
1380 DATA 0000030000030000000
1390 REM ********** screen 3 ***********
1400 DATA 4000400000400000040
1410 DATA 0000000300000000003
1420 DATA 1111111211111111112
1430 DATA 0000000200000000002
1440 DATA 0400400200040040002
1450 DATA 0000030300000300003
1460 DATA 1111121111111211111
1470 DATA 0000020000000200000
1480 DATA 0040020400004200400
1490 DATA 3000030000000300003
1500 DATA 2111111111111111112
1510 DATA 2000000000000000002
1520 DATA 2400000004004000042
1530 DATA 3030000000000300003
1540 DATA 1121111111111211111
1550 DATA 0020000000000200000
1560 DATA 4020004000004200040
1570 DATA 0030000000000300000
1580 REM ********** screen 4 ***********
1590 DATA 0404004000040000040

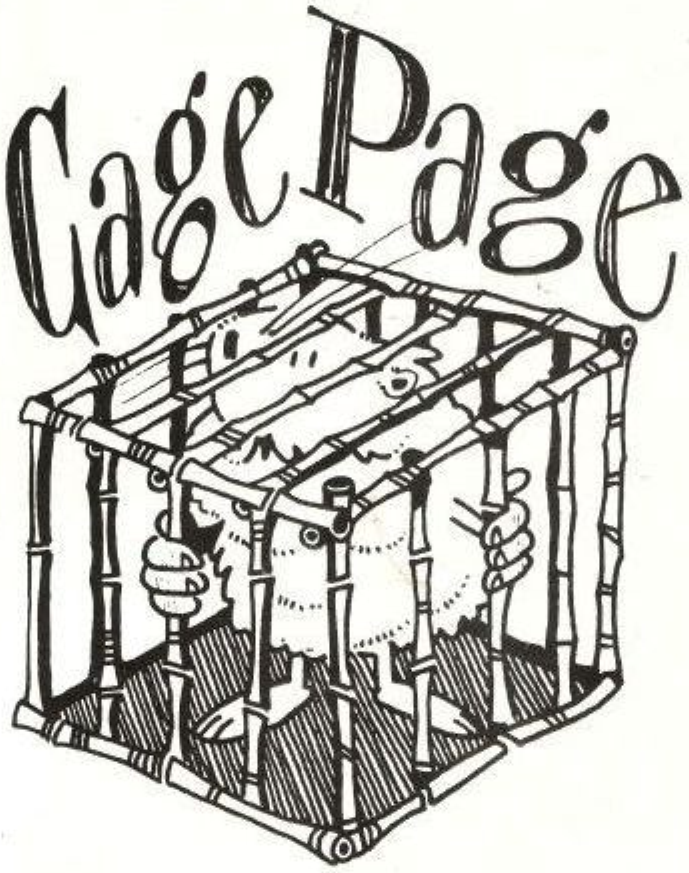
1600 DATA 0000000300000030000
1610 DATA 1111111211111121111
1620 DATA 0000000200000020000
1630 DATA 0004000200004020040
1640 DATA 3000000300000030003
1650 DATA 2111111111111111112
1660 DATA 2000000000000000002
1670 DATA 2040000040004000402
1680 DATA 3000030000030000003
1690 DATA 1111121111211111111
1700 DATA 0000020000200000000
1710 DATA 4000420000024004004
1720 DATA 0000030000030000300
1730 DATA 1111121111111111211
1740 DATA 0000020000000000200
1750 DATA 0400420004004000200
1760 DATA 0000030000000000300
1770 REM ********** screen 5 ***********
1780 DATA 4004004000004000040
1790 DATA 0030000000000000003
1800 DATA 1121111111111111112
1810 DATA 0020000000000000002
1820 DATA 4020040040000040042
1830 DATA 0030000000300000003
1840 DATA 1111111111211111112
1850 DATA 0000000000200000002
1860 DATA 0040000400200040042
1870 DATA 0000000300300000003
1880 DATA 1111112111111111112
1890 DATA 0000002000000000002
1900 DATA 0400004200400040042
1910 DATA 0000000300300000003
1920 DATA 1111111111211111112
1930 DATA 0000000000200000002
1940 DATA 4040400000200400042
1950 DATA 0000000000300000003
```

```
1960 RESTORE 1980
1970 FOR f=&8000 TO &811F:READ a:POKE f,a:NEXT
1980 DATA 0,17,34,0,0,54,57,0,0,17,34,0,64,192,192,128,128,64,128,64,0,12,12,0,0,8,4,0,68,136,68,136
1990 DATA 40,0,0,20,40,0,0,20,124,252,252,188,40,0,0,20,40,0,0,20,40,0,0,20,124,252,252,188,40,0,0,20
2000 DATA 17,51,252,34,51,118,51,51,57,118,51,51,57,118,51,51,57,118,60,57,54,60,185,54;51,51,185,51,17,252,51,34
2010 DATA 17,51,51,34,118,51,54,57,118,51,57,51,51,252,57,51,51,54,252,51,51,54,51,185,54,57,51,185,17,51,51,34
2020 DATA 0,0,0,0,0,12,8,0,4,48,36,0,24,96,144,8,4,48,132,0,0,24,8,0,0,4,0,0,0,0,0,0
2030 DATA 204,204,204,204,192,196,192,196,204,204,204,204,196,192,196,192,204,204,204,204,192,196,192,196,204,204,204,204,0,0,0,0
2040 DATA 68,138,207,0,206,207,206,138,69,143,143,207,69,79,199,204,207,207,7,136,143,206,207,136,69,206,71,138,0,138,69,0
2050 DATA 0,0,0,0,0,0,0,0,192,192,129,3,144,48,129,3,144,48,128,0,144,36,128,0,64,192,0,0,0,0,0,0

2060 DATA  0,128,0,0,64,96,0,0,144,48,128,0,144,48,96,0,64,24,96,2,0,144,128,3,0,64,0,1,0,0,0,0
2070 RETURN
2080 REM *********** Title *************
2090 MODE 0
2100 PEN 1:LOCATE 4,4:PRINT"Treasure hunter"
2110 PEN 2:PRINT:PRINT:PRINT"      By D.L.Lau"
2120 PRINT:PRINT:PRINT:PEN 3:PRINT"  A-Up     L-right"
2130 PRINT:PRINT"  Z-down   J-left"
2140 PRINT:PEN 4:PRINT" Space bar to jump"
2150 PRINT:PEN 7:PRINT:PRINT" Or use a joystick"
2160 PEN 12:PRINT:PRINT:PRINT:PRINT"Press S.Bar to start"
2170 WHILE INKEY(47)<>0:WEND
2180 GOTO 200
2190 REM *********** M/C ***************
2200 CLS:LOCATE 13,13:PRINT"Please wait......"
2210 RESTORE 2310:ln=3090
2220 FOR adr=&8700 TO &8BB9 STEP 13
2230 READ byte$:chk=0
2240 FOR i=0 TO 12
2250 v=VAL("&"+MID$(byte$,i*2+1,2))
2260 POKE adr+i,v:chk=chk+v
2270 NEXT
2280 IF chk<>VAL("&"+RIGHT$(byte$,3)) THEN PRINT"ERROR in LINE";ln:STOP
2290 ln=ln+10:NEXT

2300 RETURN
2310 DATA DD5E00DD5601DD6E02DD660425528
2320 DATA 2DCD1ABC06040E08C5E51AAE774D9
2330 DATA 231310F9E101000809C10DC2153D7
2340 DATA 87C92E062602111285E51AFE01452
2350 DATA 281FFE022822FE03281EFE0428402
```

```
2360 DATA 2113E17CFE1328032418E42602415
2370 DATA 7DFE19C82318DBE5D511A08018675
2380 DATA 0EE5D51120801807E5D5118080563
2390 DATA 1800CD0C87D1E118D12A0382014C3
2400 DATA EEFF097EFE00C8FE04C8ED4B00073C
2410 DATA 820DCD5E8B2A038201EEFF092250D
2420 DATA 0382CD0E8821008235C30E882A443
2430 DATA 03827EFE02C83A0182FE13C8ED64E
2440 DATA 4B008204CD5E8BCD0E8821018248E
2450 DATA 342A038223220382C30E882A03333
2460 DATA 82011200097EFE01C8ED4B008249D
2470 DATA 0CCD5E8BCD0E882A03820112003E7
2480 DATA 09220382210082 34C30E882A0330D
2490 DATA 827EFE02C83A0182FE02C8ED4B685
2500 DATA 008205CD5E8BCD0E882A03822B47A
2510 DATA 22038221018235C30E8811008036A
2520 DATA 2A0082C30C873A0282FE00C8FE584
2530 DATA 05C24288ED4B00820CCD5E8BCD5DA
2540 DATA 0E882A0382011200092203822 1229
2550 DATA 00823497320282C30E883C32023CC
2560 DATA 82C93A0282FE00C02A03827EFE5F2
2570 DATA 02C821968BCDAABCED4B00820D606
2580 DATA CD5E8BCD0E88210082352A03824A0
2590 DATA 01EEFF09220382E5CD0E883E01525
2600 DATA 320282E17EFE04C097772A0082591
2610 DATA 118080CD0C87219F8BCDAABC21610
2620 DATA 1383343A12833D321283FE00C045B
2630 DATA 3E02320083C93A0682FE00CAE8530
2640 DATA 88ED5B00822A05822597ED52CA5C8
2650 DATA 0789ED5B07822A0582D5E5CD0C5A5
2660 DATA 87E17CFE02CA0D89252205 82D15E3
2670 DATA 7BFE0028051100811803 11E0803C4
2680 DATA ED530782C30C87DD7E00320582533
2690 DATA 3E1432068221E080220782EB2A44D
2700 DATA 0582CD0C8721A88BC3AABCE13E683
2710 DATA 01320083C9E197320682C93A114C5
2720 DATA 82FE00CA4489ED5B00822A108259D
2730 DATA 2397ED52CA078911C0802A1082560
2740 DATA E5CD0C87E17DFE17CA5D892C226B6
2750 DATA 108211C080C30C87DD7E0032114D7
2760 DATA 82673E0532108211C0806FCD0C489
2770 DATA 8721B18BC3AABC97321182C9976C9
2780 DATA 32118321508222158321528222 38A
2790 DATA 1783215382221983215582221B383
2800 DATA 832A17837EFE01CAEC89FE05CA6D0
2810 DATA EC89FE06CA8F8AFE03CA8F8AFE83E
2820 DATA 002803C3418A3E01772A1B833E375
2830 DATA 2477233E85772A15833E07774F3C5
2840 DATA 233E0277472A19835E2356696 0387
2850 DATA CD0C873A1083473A1183B8C83C4FE
2860 DATA 3211832A15830107000922158 3253
2870 DATA 2A1783092217832A1983092219293
2880 DATA 832A1B8309188F2A15835E2356394
2890 DATA 7AFE13CAD08A142A008297ED52645
2900 DATA CA07892A1B835E23561AFE03CC4E0
2910 DATA E58A133E2432338A2A1B837323431
2920 DATA 722A15835E2356EBE52A19835E4FF
2930 DATA 2356E1E5D5CD0C87D1CD0A8BE1788
2940 DATA 247EED4B15830302CD0C87C3C1559
2950 DATA 892A15835E23561C2A008297ED46E
2960 DATA 52CA07892A1B835E23561AFE03466
2970 DATA CC1B8BEB01120009EB2A1B837349F
2980 DATA 23722A15835E2356EBE52A19834C4
2990 DATA 5E2356E1E5D5CD0C87D1CD0A8B705
3000 DATA E12C7DED4B158302CD0C87C3C1640
3010 DATA 892A15835E23567AFE02201A7B451
3020 DATA FE17C2388B2A19834E2346EB5955B
3030 DATA 50CD0C872A17839777C3C189155A4
3040 DATA 2A008297ED52CA07892A1B835E502
3050 DATA 23561AFE03CC478B1B3E25C311484
3060 DATA 8A2A1B835E23561AFE03CCE58A57F
3070 DATA 2A17833E0677C3C1896B62011246C
3080 DATA 00097EFE02C02A17837EFE05384C4
3090 DATA 043E0177C9E1ED5FFE64D02A17623
3100 DATA 833E0477C3C1897BFE4028043E56C
3110 DATA 4018023E602A1983775FC92A1739E
3120 DATA 837EFE0438043E0277C9E1ED5F5EC
3130 DATA FE3CDADC8A2A17833E0577C3C167C
3140 DATA 892A1B835E23561AFE03CC478B4E1
3150 DATA C32F8B6B62011200097EFE02C04A4
3160 DATA 2A17837EFE06C2FB8A3E0377C960E
3170 DATA 2A058297ED42CA06892A108297523
3180 DATA ED42CA06893A108332118311504 7C
3190 DATA 821A6F131A6797ED42CA0689EB5A9
3200 DATA 11060019EB3A1183FE00C83D3241E
3210 DATA 118318E30101019600000073200261
3220 DATA 02020296000007320001030396172
3230 DATA 00000732000404043200050 71E0A1
3240 DATA 00000000000000000000000000000000
```



Amster's cage is an area of Prestel where Amstrad computer users congregate. It is a melting pot for ideas. Ask a question and someone is bound to know the answer. Ian Hoare acts as referee and has selected some highlights.

From MR B O SLATER

I like doing hardware enhancements and realise the problems, but the benefits can be enormous. As well as upgrading my rom I've fitted an increased printer buffer, a through connector on the disc i/f, and connected the computer power supply to the Cirkit modem.

All of these were tips via Micronet and have made communicating more of a pleasure. Oh well, I'll have to admit I quite like Amsword. Very good when customised.

● *I'm very glad that one netter feels his sub has done him some good. I agree with what I detect as a hidden comment behind your MBX.*

I rather wish Amstrad would be a bit more forthcoming for that kind of mod. I'd like to see 8 bit port mod, rom upgrade mod there. Remember though, that you'll need power from somewhere. The DIN is 1 red, 2 green, 3 blue, 4 synch, 5 ground, 6 Luminance.

From MR M APPLEYARD

Here are details of Scart connector:
1 R audio out 2 R audio in
3 L audio out 4 Chassis audio
5 Chassis video 6 L audio in
7 Video in 8 source switching
9 chassis G video 10 data bus
11 G video in 12 data bus
13 chassis R vid 14 chassis data bus
15 R video in 16 fast video blanking
17 chassis comp vid 18 chassis fast vid
19 composite video out 20 composite video in

I hope that helps.

● *Thanks, Mike. Odd! I can see video red and video green, but where's the video blue? I think what one needs to know is which pins in the Scart plug need to be connected and to which of the pins on the monitor socket. EG what happens to luminance?*

From J P PRATT

Please tell me how to get my video recorder to take frames from my 6128. Any one know the connections please? Regards to all.

From M SALLEH & R TOUW

Re John Pratt CPC frame to video. Here is my tip, John, I hope it helps you. I have never tried it, but it just came out of my mind.

First you get your TV and video recorder ready, then use a modulator to power your computer. Now, instead of plugging straight into the TV try plugging the output into the video aerial input and the VCR output socket to your TV.

Switch everything on and see how it works. Adjust your video channel to grab the picture. I am sure it will work, as the VCR normally records anything coming from the aerial, so CPC signals should not be different.

Now set up the VCR to record, and then display any frames that interest you. Of course, you can't edit the recording, but you can press the Pause key until you get to the frame you want.

To recap simply. Connect from CPC to modulator, to VCR aerial input. VCR out goes to TV. With a bit of luck, it ought to work.

Mr A P KEELEY

I think Mohamed's idea about connecting modulator to video RF might not work. Most of the newer videos I've used will not record a signal on channel 36, presumably to stop people pirating tapes.

Most older models will do it though, but through RF the picture is terrible. Scart is the best answer if the VCR has the facilities.

From ASHOK

Can you help me, please. I want to get a daisywheel printer for about £200 or so. Can you advise?

● *Before I give any advice, can I warn you that whatever you get, you will have to have a suitable printer driver installed, so be sure your word processor can either create one or that a suitable driver is available. I suggest that you have a look at a Juki 6000.*

From DAVID FOSTER

Ashok would be better looking at the Juki 6100, rather than the 6000, which doesn't support proportional spacing and I think is somewhat slower. A fine machine, built like a tank (and weighs as much).

You can sometimes find second hand ones for £150 or less and I defy anyone to wear one out. Ribbons and wheels are readily available.

● *Agree 100 per cent, I thought I was being asked about new printers though. Ashok, do think hard about David's advice.*

From DIGITASK BUSINESS SYSTEMS

Ashok asked for a daisywheel printer for his PCW. Well I can suggest the Juki 6100 (as opposed to the 6000. Yes I know it's 132 col, but you only have to use the first 80 if you want to).

The 6000 is around £147 with the 6100 (a much better beast) at £255. Now a real bargain is a Dataproducts DP20 at £200, serial i/f only. Where from I wonder?

● *Thanks Dave. I do agree with you re the 6100. Ashok, do see if you can get a second hand one, or think hard re £255.*

BASIC tutor

Untangling the syntax

String, string – everybody loves string, but few use INSTR. Jeff Walker points the way

INSTR is a useful keyword that gets very little publicity. Some books, including the CPC manuals, describe its use without giving any practical examples, but the great majority of books simply ignore it. This has led to the misconception that it is another of those keywords that only experts or specialists would use. Not so.

For a start, INSTR is extremely useful for validating user input. Take a look at this:

```
10 'Single keypress validation
20 '
100 MODE 2
110 GOSUB 4000 'initialise
120 GOSUB 1000 'ask nosey questions
130 GOSUB 2000 'print results
140 PRINT:END
998 '
999 'Ask nosey questions
1000 PRINT"Are you:"
1010 PRINT"Male or Female? (M/F) ";
1020 valid$="MF":GOSUB 3000
1030 male=keypressed
1040 PRINT"Married or Not? (M/N) ";
1050 valid$="MN":GOSUB 3000
1060 married=keypressed
1070 PRINT"Bald or Hairy? (B/H) ";
1080 valid$="BH":GOSUB 3000
1090 bald=keypressed
1100 PRINT"Clever or Thick? (C/T)";
1110 valid$="CT":GOSUB 3000
1120 clever=keypressed
1130 RETURN
1998 '
1999 'Print results
2000 PRINT
2010 PRINT"O.K. You are a ";
2020 IF married=NO THEN PRINT BS$;"
     n un";
2030 PRINT"married, ";
2040 IF bald=YES THEN PRINT"bald an
     d "; ELSE PRINT"hairy, ";
2050 IF clever=YES THEN PRINT"cleve
     r "; ELSE PRINT"thick ";
2060 IF male=YES THEN PRINT"man." E
     LSE PRINT"woman."
2070 RETURN
2996 '
2997 'Get single keypress.
2998 'Enter with valid$ holding
2999 'the legal keypresses.
3000 keypressed=0
3010 WHILE keypressed=0
3020  in$=UPPER$(INKEY$)
3030  IF in$=""THEN 3020
3040  keypressed=INSTR(valid$,in$)
3050 WEND
3060 PRINT in$
3070 RETURN
3998 '
3999 'Initialise
4000 YES=1:NO=2:
4010 BS$=CHR#(8) 'backspace
4020 RETURN
```

The subroutine of greatest interest is at 3000. Once entered it cannot be returned from until the user has pressed one of the keys the program wants pressed. The valid keys are held in the the variable valid$.

At the start of the subroutine keypressed is initialised to zero, and it will remain that value until line 3040 sets it otherwise.

This line, 3040, tries to match the string in$ – the key you pressed – with the string valid$. If it finds that in$ is part of valid$ then it assigns the value equal to the position of the first occurrence of in$ to the variable keypressed.

Readable constants

In terms of this program, that means that if, for example, valid$="YN", then if Y is pressed keypressed will equal 1, and if N is pressed it will equal 2. If any other key is pressed, keypressed will equal zero. Some other examples would be:

```
in$="E": valid$="ABCDEFG"
                     |
keypressed=5 --------'

in$="B": valid$="ABCDEFG"
                  |
keypressed=2 -----'

in$="Z": valid$="ABCDEFG"

keypressed=0
```

When we get back to the main program we store keypressed away in another variable for future use – see line 1030 for an example.

In the initialisation subroutine two constants have been set up, YES and NO, to hold the values 1 and 2, and these constants are used instead of numbers in the results subroutine at 2000. They make the program far more readable as it is obvious at a glance what is going on in a line like:

IF male=YES THEN ...

whereas

IF male=1 THEN ...

is totally confusing to anyone except the original programmer.

The subroutine can be used for as many valid keypresses as can be held in valid$ – even numbers from a menu:

valid$="123456789":GOSUB 3000

would return with keypressed holding the exact number the user has chosen and could therefore be used directly in an ON GOSUB statement if wished:

ON keypressed GOSUB 1000,2000 ...

What we are going to do now is see how INSTR can be used to split up a sentence into its separate words and do a rudimentary parse.

To isolate a word we need to know its boundaries, or delimiters. Words in English can be delimited by quite a few punctuation marks, but at the end of the day each word in a sentence,

except maybe the first, will be preceded by a space character. This is the character we will look for to show us where a new word starts.

```
10 'Splitting a sentence
20 '
100 GOSUB 1000 'initialise
110 GOSUB 2000 'split sentence
120 GOSUB 3000 'print results
130 END
998 '
999 'initialise
1000 DIM word$(10)
1010 in$="Get the hat and wear it"
1020 RETURN
1998 '
1999 'split sentence
2000 t$=in$
2010 sp=INSTR(t$," ")
2020 count=1
2030 WHILE sp>0
2040  word$(count)=LEFT$(t$,sp-1)
2050  t$=RIGHT$(t$,LEN(t$)-sp)
2060  count=count+1
2070  sp=INSTR(t$," ")
2080 WEND
2090 word$(count)=t$
2100 RETURN
2998 '
2999 'print results
3000 PRINT:PRINT in$:PRINT
3010 FOR loop=1 TO count
3020 PRINT loop;word$(loop):NEXT
3030 PRINT:RETURN
```

The above program shows the technique. The splitting subroutine is at 2000. Enter it with the sentence to be split held in in$, and the routine will exit with the separate words of the sentence held in the word$ array.

Note that you should dimension this array to the greatest number of words you would would expect the user to use in one sentence. In the initialisation subroutine I've put it at 10, but 30 or 40 would probably be a safer figure.

In the splitting routine the sentence is first assigned to a temporary variable, t$, then we look for a space character in it and set up a counter for use in the WHILE loop.

In the WHILE loop, line 2040 assigns all the characters up to (but not including) the first space it found to word$(count), and then line 2050 knocks this word (and the space) off the sentence before it increments the counter, checks for another space and goes around the WHILE loop again.

After the loop has executed (or not if in$ contains no spaces – a single word), one word is still not assigned to the word$ array. This is either the first (and only) word of the sentence, or the very last – line 2090 completes this job.

The routine is a still a shell, mind you, checks for empty strings and punctuation marks need to be added really – but now you have the basics, I'm sure you can do the rest.

So much for detecting single characters, but INSTR can also be used to detect the presence or not of a shorter string within a longer string. Again, the value returned will be the position where the shorter target- string starts within the longer searched-string, or zero if it is not found. This is where INSTR can help us do a bit of parsing.



Before we move on to this, though, let me introduce you to the extra parameter in INSTR, the "start position":

```
where=INSTR( 9,searched$,target$ )
             /          /        |
            /          /     ...and look
           /          /       for this
start searching      /         string
from the 9th
character of this string...

               9th character
                     \
searched$="THE CAT SAT ON THE MAT"
                     |      |
target$="SAT"        |      |
where=9 -------------       |
                            |
target$="THE"               |
where=16 -------------------

target$="CAT"
where=0
```

Notice that because we've designated the search to start from the ninth character, when searching for THE it finds the second occurrence, not the first. Had we designated 1 as the start position, the first THE would have been found instead. Very useful feature this. Must think of a way to use it some time.

A few assumptions

Anyway, back to our programming. Keeping our adventure scenario going, now we know how to split the sentence up, we can make some assumptions; the main one being that the first word, word$(1), will be a verb: GET, DROP, CLIMB, etc.

If we pack all the words we want our program to understand - or, at least, the first four letters of each word – together into one long string, we can use INSTR firstly to tell us whether the word is understood or not, and then to direct the program at a subroutine to deal with that word.

```
10 'Rudimentary parsing
20 '
100 GOSUB 1000 'initialise
110 GOSUB 2000 'get a word (in$)
115 words$(1)=in$ 'for example
120 GOSUB 3000 'parse it
130 END
998 '
999 'initialise
1000 know$="GET#DROPCLIMSPEABAST"
1010 RETURN
1998 '
1999 'get a word
2000 PRINT"Enter a word";
2010 INPUT in$:in$=UPPER$(in$)
2020 RETURN
2998 '
2999 'parse the first word
3000 t$=word$(1)
3010 IF LEN(t$)<4 THEN t$=t$+"#":G
     OTO 3000
3020 what$=LEFT$(t$,4)
3030 where=INSTR(know$,what$)
3040 IF where=0 then RETURN
3050 branch=INT(where/4)+1
3060 ON branch GOSUB 4000,5000,6000
     ,7000,8000
3070 RETURN
3998 '
3999 'Get
4000 PRINT"You take it.":RETURN
4998 '
4999 'Drop
5000 PRINT"OK. Dropped.":RETURN
5998 '
5999 'Climb
6000 PRINT"Wot? Up there?":RETURN
6998 '
6999 'Speak
7000 PRINT"Speak to who?":RETURN
7998 '
7999 'Naughty word
8000 PRINT"So are you!":RETURN
```

The program's vocabulary – the first four letters of each word – would be held in know$. If a word is less than four letters long, fill it out with a dummy character; I've used a hash (#), for example, to fill out GET in know$.

The second line in the parsing subroutine (3010) does the same thing to the temporary variable t$ so the program doesn't crash when line 3020 lops off the first four letters of the word in order to process it. Obviously, if we hadn't filled the word out, and if the word was only three letters long, line 3020 would crash because it would be looking for four letters in a three-letter word.

Line 3030 is the one that checks to see if the word you entered is in the program's vocabulary. If it isn't, the variable "where" comes out equal to zero and line 3040 simply returns from the subroutine. In practice you would deal with this by GOSUBing to a special "I don't understand" subroutine.

The next line (3050) does a calculation on "where" because in its present form it can't really be used in an ON GOSUB. In the example pro-

gram, "where" will be equal to either 1, 5, 9, 13, or 15.

We need to convert this sequence to 1,2,3,4,5 for ON GOSUB, and this is done by integer-dividing "where" by 4 and adding one. If your program's vocabulary consisted of the first five letters of each word, then the division would be by 5; if it was just the first three letters of each word, the division would be by 3. Whatever you divide by, though, you will have to add one to the result.

The variable branch holds the new value (either 1,2,3,4 or 5), and this is the value, in line 3060, that will send control of your program to the subroutine which most closely understands the word under investigation.

In these special subroutines you could use further tests to avoid ambiguity – SPEA, for instance, could either be SPEAK TO FRED or SPEAR THE PIGMY. The original word is still held in word$(1), so there's no problem there:

```
IF word$(1)="SPEAK" THEN GOSUB ...
IF word$(1)="SPEAR" THEN GOSUB ...
```

These subroutines are also where you'd want to begin to investigate the rest of the sentence – you know, the words held in the word$ array from the routine that split up the sentence.

If the verb, for instance, is GET, then you know there's going to be noun (an object) somewhere in the sentence, so a second parsing routine to deal with objects needs to be executed if there is more than one object lying around. The technique would be almost identical to that which we have just been through. Away you go.

Oh yes, in passing, don't forget that words like THE and AND are useless, so they can be be ignored. And the word IT will always refer to the previous noun in the sentence:

GET THE HAT AND ROCK AND THROW IT

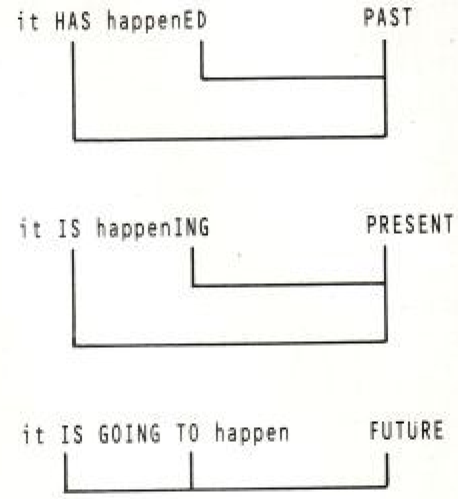
What should get thrown is the rock, not the hat.

INSTR is a powerful tool for investigating the contents of strings, particularly if the contents of those strings (Locations? Objects?) are constantly changing during the program. Think about that.

And while you're thinking about that, here are a few other ideas that you could use INSTR with:

- A program that counts the number of words in a document.
- A program that counts the number of times a certain word occurs in a document. (Don't forget that INSTR on the CPC is case sensitive).
- A program driven by multi-word typed-in commands instead of menus.
- A chat program, where the computer talks back in an intelligent manner.
- A program that translates a document into a foreign language.

All these ideas, in one way or another, are looking for shorter strings within longer strings; from Idea (1), where you would be looking for the spaces between the words – to Idea (5), where you would possibly, amongst lots of other things, be looking for groups of words and endings of words in an attempt to understand the tense. For example:



And don't believe those programming snobs who say it can't be done in Basic.

How to join: See Page 26



Stuart Williams looks at the software held in the public domain

A SUBJECT close to the heart of many Amstrad computer owners is their wallets – so the promise of free software is one which often makes the ears prick up.

Public domain software and shareware – also sometimes known as user supported software – has a reputation for being third rate. Whether you agree depends on what you're looking for.

If you're a games fanatic into zap-pow graphics and sound, then look elsewhere, on the CPC machines at least (PC owners are slightly better off here). On the other hand, if you fancy text adventure games, programming languages, machine code programming aids, wordprocessors, communications software, and utilities of all kinds, then look no further.

Most public domain (PD) software runs under CP/M, and being designed to work on all CP/M computers, has no graphics or sound. Very few UK software authors seem to have been willing to put their work into the public domain – those authors with programs which are of commercial standard have naturally chosen to sell them commercially.

Most PD programs have been developed in the USA by programmers who had to write software to do a job for which a commercial equivalent is either not available or too expensive. In a bid to help other users in similar situations, and to advertise their talents as programmers, these authors have released their work for all to use.

Gradually, by means of modems and bulletin board systems, as well as user groups amd PD libraries, the mass of software which has built up has migrated around the world, and eventually landed in the laps of users of the first affordable home CP/M system in the UK – the Amstrad CPC range.

What do we mean by public domain and shareware? Well, there is a clear distinction between the two. Copyright of software in the public domain still resides with the original author, but he or she has decided that computer users may have the program free of charge and make as many copies as they like and give them to whoever they choose.

Commercial

The software may not be sold commercially, although it is permissible for PD libraries to make a reasonable charge for media, administration and distribution costs.

Shareware, or user supported software, is on the other hand quite definitely a commercial product. A system originating in the United States, the shareware concept briefly allows you to make copies of the software free of charge, and distribute them in similar fashion to PD software, with the proviso that if you like the program, and intend to use it regularly, you should send a fee (usually varying from $10 to $100) to the author or company, for which you will often receive an updated version and (in the case of the larger fees) a printed manual.

Now we know what PD software is, what sort of program can we expect? To illustrate this, I'll briefly describe a selection of the better programs available, in fact some real gems.

For the games fan, as I said, there are few attractions, but there are two classic games which are always popular – the perennial Star Trek and the original Colossal Cave Adventure.

Star Trek is an involved strategy game in which you must boldly go where no man has gone before and rid the Universe of Klingons.

Played on a large grid, of which you can only see a small area at a time, Star Trek enables you to interrogate the computer, provide a short range and long range scan of local star systems, use phasers and photon torpedoes on the dastardly Klingons, and generally dash about the Universe on warp drive, creating mayhem as you go.

Most versions run in Basic, and can often be used without CP/M, under Locomotive Basic. This is entirely unrelated to the mythical Beyond game of the same name.

Colossal Cave Adventure is an almost exact copy of the original mainframe adventure created by Crowther and Woods. A massive 100 plus k of adventure and data means a lengthy and absorbing session of puzzle solving and combat beneath the ground. If in doubt, take everything you can see, and remember the magic word XYZZY. Several commercial companies are still marketing their own versions of this game, so it is obviously still a popular choice for adventurers.

Those interested in machine code programming will undoubtedly find Z8E indispensable. A truly superb symbolic Z80 debugging monitor with animated display and single step features, Z8E is of truly professional quality and an essential machine code programmers tool.

The massive documentation file (more than 100k of text) contains a full manual with installation details.

Text editor

VDE231 is an excellent CP/M based text editor and word processor, which is Wordstar file and key-compatible. It is very easy to use, and has a comprehensive help screen. Its one limitation is the restriction on file size imposed by the use of memory resident files only.

A vital accessory to VDE231 is its installation program which enables you to customise the program for your system and printer.

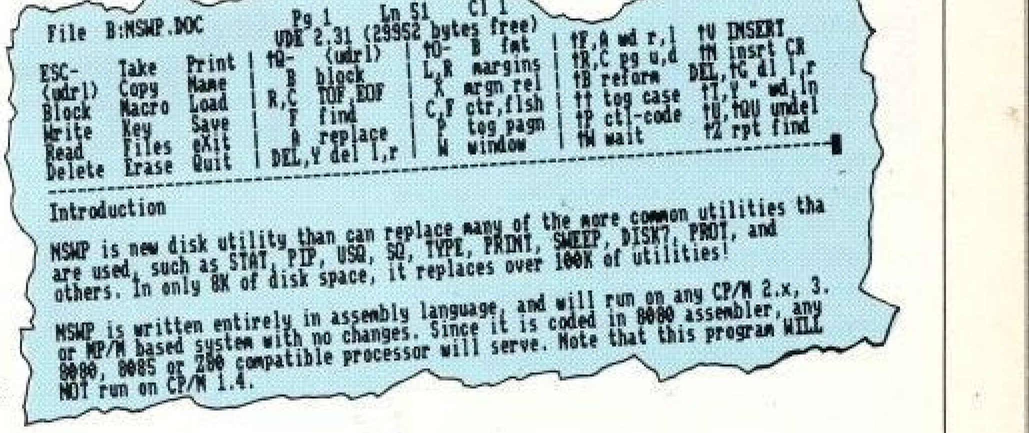
NSWEEP is an essential utility for those of you who, like me, need a swift and accurate file manager – its many facilities, apart from error checked file transfer from disc to disc, include compression and decompression of files (perhaps to save space on little used text files or programs), printing and viewing of text files, and alteration of file status. NSWEEP (latest version NSWEEP207.COM) can replace half a dozen other CP/M utilities in one go.

For communications fans, MEX (Modem EXecutive) is a superb terminal program including Ascii text file transfer and Xmodem error corrected program up and downloading. It can even be programmed to log on to your favourite Email service or bulletin board system, send your password, go to the required area, send a message, receive your mail, download a program, and log off again, all on its own.

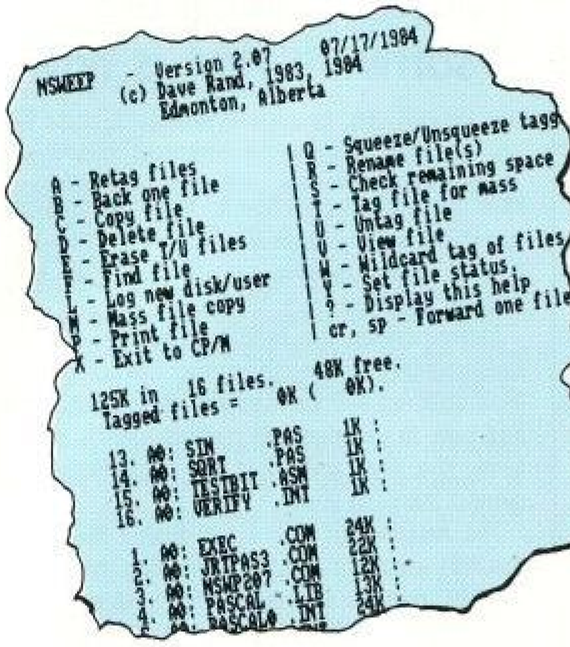
Jewel in crown

MEX comes with a detailed manual in text file form and extensive Help options from within the program itself. It does not support viewdata , but is invaluable for all text-based services and for transferring files from user to user, or via RS232C.

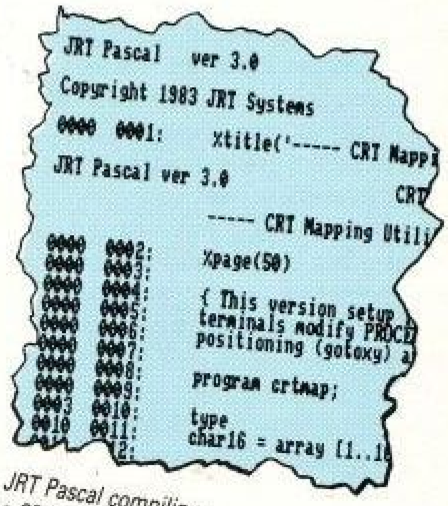
Finally, the jewel in the crown of PD software is perhaps JRT Pascal version 3.0. This language, the predecessor of Nevada Pascal, was once a commercial product – and it shows. A massive manual (over 150 pages.) is supplied as a text file



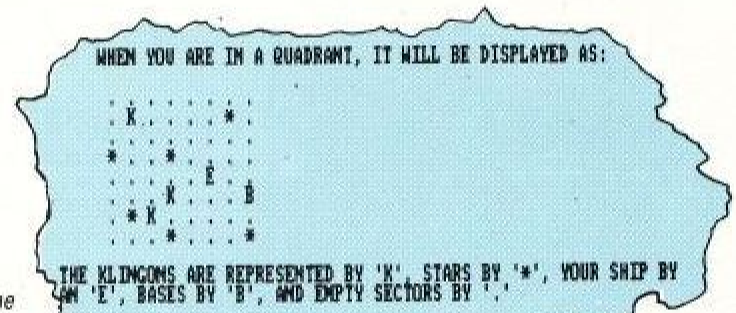
VDE231 Texteditor – shown word-processing a documentations file



NSWEEP File Manager



JRT Pascal compiling a CRT mapping utility



Screen from the introduction to Star Trek .BAS

for printing, and the system comes with various utilities and example files.

JRT Pascal uses the intermediate, or P-Code compiling system, whereby the compiler produces a file with the suffix .INT from your source code (ie TEST.PAS becomes TEST.INT) which is then run using the EXEC.COM program supplied.

Sadly, JRT Pascal is only suitable for CP/M Plus, due to the small TPA of CP/M 2.2. A text editor, such as VDE231, is essential to edit your source code, and is often supplied with the system, though it is best to check.

So then, just a small sample of the often excellent software available to CP/M users. But where do you get it? Well, if you have a modem, you will be able to download some of the smaller programs from your favourite bulletin board.

User groups often have a library available to their members, or you may take advantage of the offers available from the various PD libraries, some of which advertise in *ACU*.

Now you know what's out there, go get it.

Sources of public domain software

***CP/M User Group*, 72, Mill Road, Hawley, Dartford, Kent DA2 7RZ.**

***Triple Zero Services*, 23, Broad Lane, Essington, Nr Wolverhampton, Staffordshire, WV11 2RG (s.a.e. for list).**

***PD-SIG*, 90, Braybourne Close, Uxbridge, Middlesex, UB8 1UJ.**

The computer classroom

David Foster looks over some of the educational software that is now available for the Amstrad

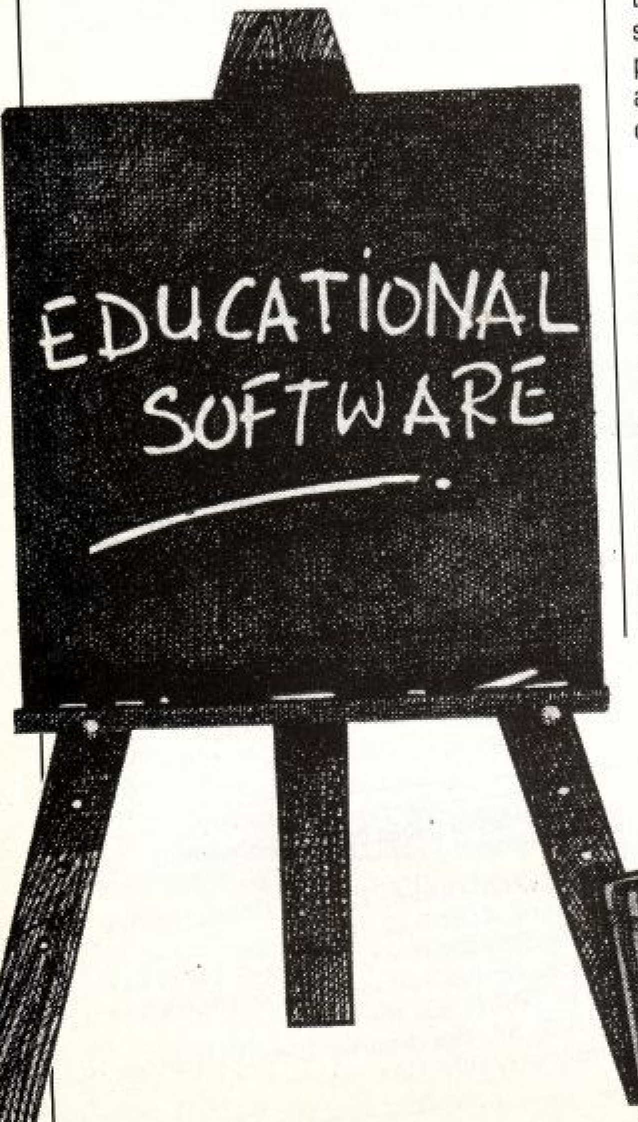
EXACTLY what is educational software? More importantly, what ought it to do and is any available? These were questions that I was prompted to consider when a fat parcel of educational software arrived for me to have a look at, courtesy of the editor.

I am not a full time educationalist, but I do teach computing one day a week at a local school and spend half a day a week working with the disabled and computers at a Cheshire home – a highly recommended and satisfying pastime. I also have two children aged 10 and 12, so I have had some varied experience of "educational" software.

To date, the vast majority of educational software has been produced for the BBC computers simply because it was the machine adopted by most educational authorities. As a result, a lot of educational software for the BBC has been written with school use in mind, as this is where the largest market has been.

Amstrad made a half-hearted attempt at breaking into the educational market via Northern Computers (no longer with us), but the number of Amstrads actually in use in schools is very small and must provide little incentive to software houses to produce educational software. And a lot of the software that is available has been converted from the original BBC programs.

There would appear to be two different markets for educational software – use in schools and use in the home. There also appears to be some conflict regarding what actually comprises educational software.



Many parents are fondly going through life believing that because the school has computers, their children will be learning about computers and how to use them. In my experience, this is rarely the case and most are used merely as subject teaching aids.

The reasons for this are probably that most teachers are not trained in computing. And while the BBC may be a good machine, its operating system bears little resemblance to those that people will come across when they leave school and little of the software is typical of the applications software used in the real world.

Basics needed

From a personal point of view, I regret very much that more emphasis is not put on learning the principles of using word processors, spreadsheets and databases as part of the school curriculum, as there is little doubt that most people will come across them once they start work. And they can prove extremely useful even before that time, in further education.

What better way to do your final thesis than with a word processor? From experience I have found that even young children can learn and benefit from using such programs and what is more, they enjoy it as well.

Much of the available software appears to have been designed by teachers who wanted programs that could be used as a subject teaching aid, in much the same way as they might use an overhead projector to illustrate something, or a schools' television broadcast to assist in explaining the subject being taught.

Some software has been expressly written in the form of "aids to revision" of particular subjects and a very small amount has been written to help with actually teaching the subject of computing in schools.

Unfortunately, programs that might be excellent subject teaching aids in a school are often of limited value in the home environment. The reason for this is that few of them have any staying power.

In a school this will be of little importance, as each class will probably only ever use any one program once or twice in the year and each child will only have a few minutes actually using the program. The situation in the home is very different and a program should be capable of being used repeatedly by a child without losing its interest value.

Many programs take the form of asking a question and require the answer to be selected from three or four options displayed on screen. A child will very soon learn which answer to select, without ever learning or calculating the answer and programs of this sort will soon lose their appeal unless there is a vast store of possible questions and answers incorporated into the program.

Programs written specifically to help with learning to use a computer, or as simple introductions to word processing, databases and spreadsheets are thin on the ground, particularly for the Amstrads. But luckily there are a number of simple programs, which, though not specifically aimed at the educational market, are quite suitable for the purpose.

There are a number of companies producing educational software in Amstrad versions and I received a selection from Bourne Educational

Software, Fernleaf Educational Software, Kosmos Software and School Software of Limerick, Ireland.

Most of the names will be well known to anyone who has used the BBC and most of the programs will be equally familiar. One advantage of this is that it may well be possible to buy an Amstrad version of the same programs that your child uses at school, for use in the home.

I shall not review each program fully, as there are too many of them, but I shall attempt to describe the type of program they are and at the end give a personal opinion of whether they might suit the needs of someone in the home environment.

Bourne seems to provide a variety of programs for children of different age groups, with those for the 3-6 age groups being mainly of the "Helping to learn to spell", "Helping to learn to tell the time" type, with those for the 5-10 or 12 year olds requiring more in the way of thought and deduction.

World-Wise is one of a number of programs where the computer learns from the user. The idea of the program is very old and has been available for many years under a variety of names. The supplied instruction booklet is small, but describes adequately how the program is used. CP/M and Amsdos versions are supplied on the same disc, which means it can be used on the PCW range as well as the CPC.

Twin failing

World-Wise is a geography program and you have to select from a range of features, such as river, mountain or town. You then think of the name of, say, a river and the computer asks you questions which you have to answer, as it tries to guess what you are thinking of.

If it fails, you tell it what you were thinking of and describe a question to distinguish it from another answer. It adds these details to its store of knowledge for future use. The program is reasonably well produced, but is provided with very little data. It seems to go through menus needlessly every time you want to have another go.

There are two main failings with this type of program for home use. First, if you are the only person using the program, you quickly learn what words the computer knows and second, it is dependent on the correct information being entered when the program asks for details.

If rubbish or incorrect answers are entered, it makes a total nonsense of the program. Unfortunately, children frequently know the name of something, but not the details, so incorrect information is a common problem.

Come on down

Answer Back Quiz Junior from Kosmos is, unsurprisingly, a quiz game. It is available on disc or cassette and Data for a number of quizzes is provided. It is described as being suitable for 6-11 year olds. I have to admit to getting off to a bad start with this program, as the initial loader is supposed to check whether a 464/664 or a 618 is being used, before loading the appropriate version, but instead it returned to Basic with an error message when used with a 464.

Having got round that problem, the next one was that I had to load data for a quiz, but there was no way to get a listing of what the quizzes were called, or what they were about, so back to Basic again.

Having CATted the disc before reloading the program, I at last managed to get into the quiz. A graphics screen displaying a castle is presented for all quizzes and questions are asked across the top of the screen, with all answers being entered in a window at the bottom.

A correct answer results in you having the opportunity to rescue a "beautiful princess" by dropping a sandbag from a hot air balloon on to the head of a dragon that is trying to kill her.

You can opt for random questions, or they can be asked in data file order. The number of questions to be asked may be selected and whether questions should take the form of Y/N, fill in the spaces, or choose from a selection of options, answers.

Fifteen quizzes are supplied, on different subjects, each containing 50 questions and it is possible to create your own quizzes and save them for future use.

The idea of the program is quite good, but its biggest failing, apart from the slightly sloppy programming at the start, is that children have to set their own levels of answering the questions and invariably they pick the easiest so that they can save the damsel.

The Fernleaf program supplied was called the Amstrad Educational Software Selection and is a compendium of six programs. Fernleaf specialises in problem solving programs intended for use by groups of children who can discuss moves and actions before entering their decisions.

As such, they are more suited to use in a school environment than the home, unless you happen to have a house full of similarly aged children. Having said that, the programs are well thought out and it is quite possible to use them on your own.

The supplied programs vary from The Raiders, where you have to lead a raiding party to the



English Coast, deciding on where to land, camp and raid, to a mathematical program called Market Stall, where you have to decide what goods to buy and the price to sell them for, depending on the season and weather forecasts.

The programs use graphics to draw maps or pictures and at each stage you are informed of progress and have to make decisions based on this information. Each program is supplied with an instruction sheet containing details of the scenario and where necessary, a worksheet so that you can keep a note of what has happened to date.

The best thing about these programs is that there is no "Correct" answer and you could spend quite some time trying different ways of achieving the objective, or best result, with each program.

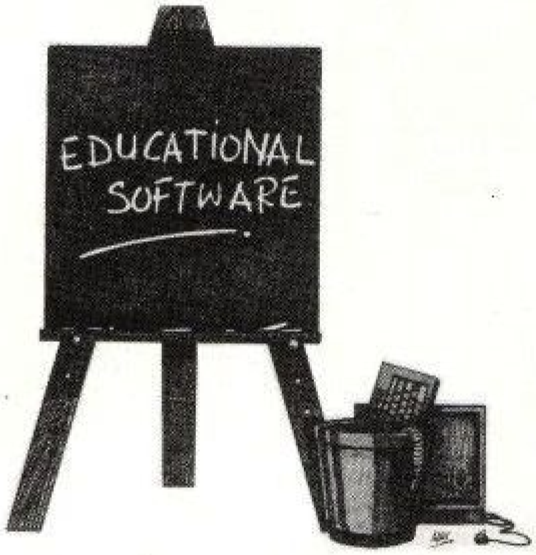
The final group of programs came from School Software, using the quiz approach, with a strong leaning to maths, but also with programs covering geography and playschool. There are also programs covering biology, physics and chemistry, as well as music.

Each program covers a specific subject and there is not a lot of variation within the programs to hold a child's attention, although some of them have music(?) and a bit of graphics fun if you get the answer right.

School Software cover a wider age group than most, with programs for the 3-8 year olds, up to maths programs for 14-18 year olds, with the Music programs being described as 7-adult.

The programs are a mixture of protected Basic and machine code and as a result they can be a little slow in operation on occasions. Some of the programs are better than others, but I am afraid that none of them really inspired me.

They follow the "select an answer from the list" route and as a result may tend to lose their



interest rather quickly. Some of the programs give quite a lot of information which might be found useful for revision, but nothing that couldn't be found in a book. I would suggest that most of these are best suited to use in a school environment, rather than at home.

Conclusion

Of the programs I looked at, most of them – if not all – are better suited to use in the classroom, which in most cases is where they were intended to be used in any case. The decision-making programs from Fernleaf have probably got the greatest lasting power, though in many ways they cannot be compared with the others. Whilst the other programs all aim to teach you something specific, or check on whether you know specific details about a subject, the Fernleaf adventures are intended to promote thinking and discussion, an objective that they certainly achieve.

I think I would rather invest in simple word processing, database and spreadsheet programs and let my children loose on those, leaving the traditional educational programs to be used in schools.

It is amazing how popular writing "Thank you" letters becomes with a word processor. And even keeping an address book or a catalogue of stamps/train numbers in a database can be exciting. And the end of the day your child has learnt the basics of something which will almost certainly prove useful in years to come.

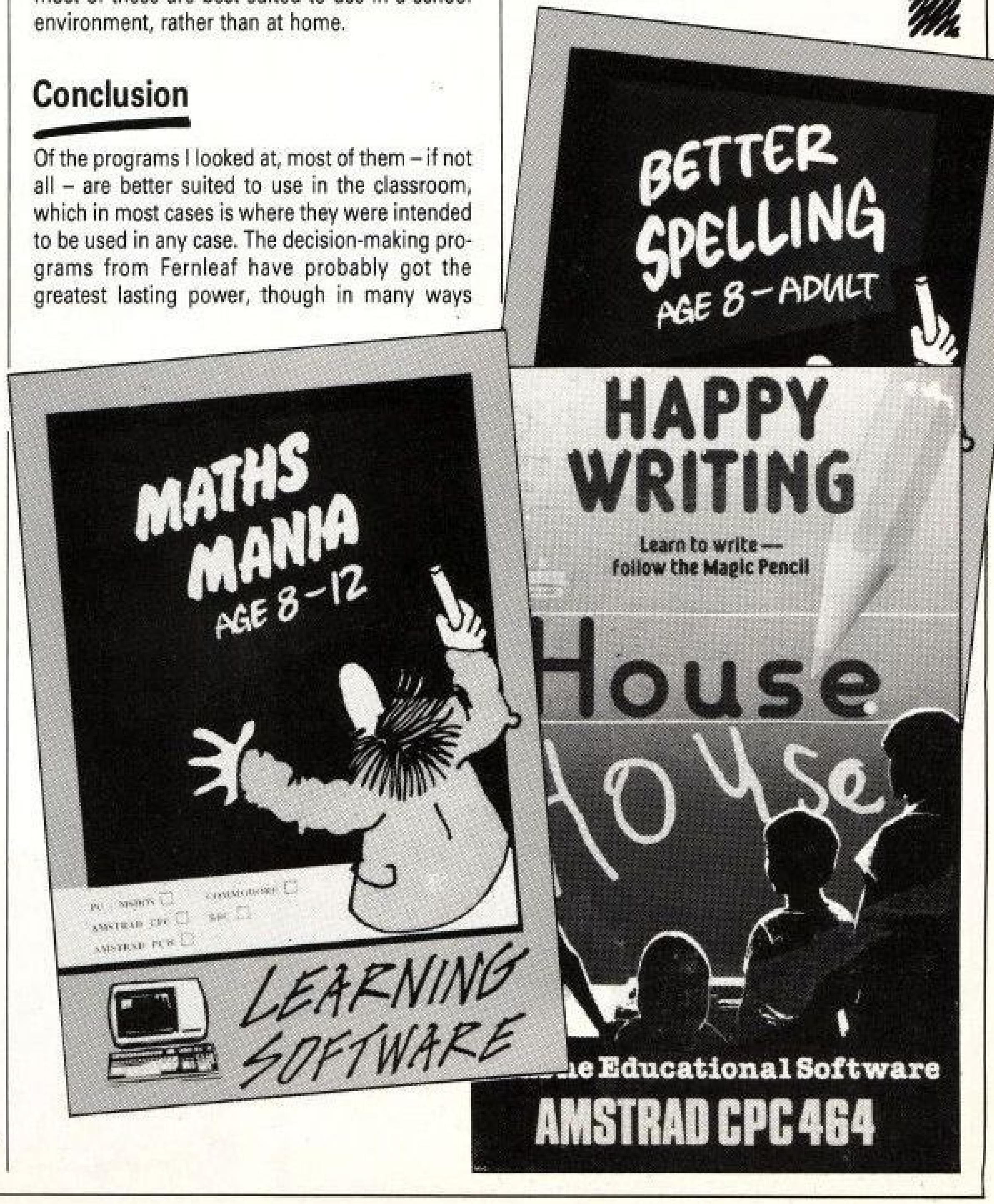
None of the programs I looked at are bad – it is just that I feel that they are not really ideally suited to use in the home.

Editor's note: ***Editor's note:*** *Educational programs always fall a long way short of the standards set by the cheapest of games. If Mastertronic tried to sell games which were as poorly written, slow to respond and graphically unexciting as even the best educational software, they would be laughed out of court.*

Just as a good game relies on content and presentation, a good educational program should be well written in addition to being well conceived.

In many ways it is the schools which are to blame for the low standard of educational programs. The demand for software is limited, which means that the prices need to be high. Yet schools are unwilling to pay realistic prices – say £100 per program.

Instead the software is pirated, with the teacher chuffed at having saved the school so much money. The result is fewer programs and much lower standards. Perhaps the best thing we can learn from educational software is that piracy kills software.



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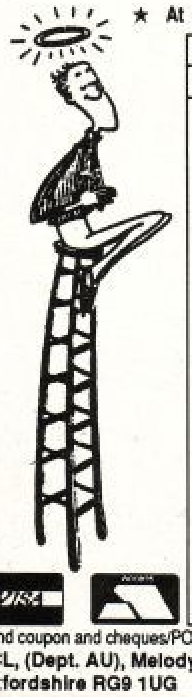
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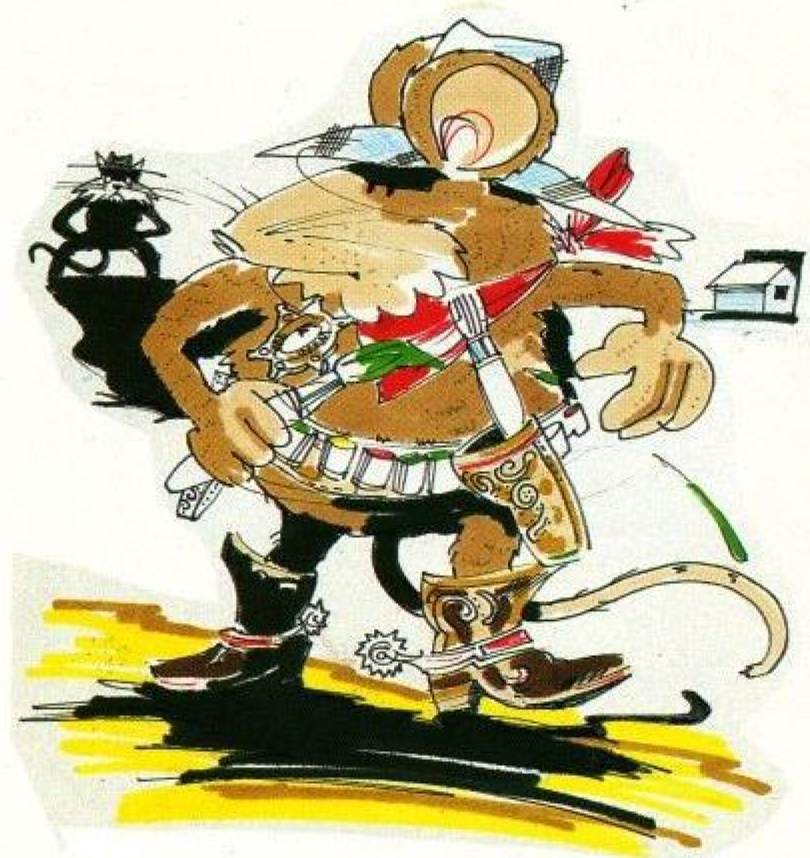
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Quick on the draw

Jill Lawson looks at the software selection for picture producers



Advanced OCP Art Studio *from Rainbird (CPC 6128, or CPC 664 with 64k expansion, or CPC 464 with expansion and disc drive)*
If this one is available for your system, then you need look no further. You don't even need the excellent manual to get started, and it offers loads of exciting features.

Melbourne Draw *from Melbourne House*
Good all-round drawing package with most of the features you would hope for. Just a bit heavy going at first, but fine once you have mastered its intricacies.

AMX Art (with AMX Mouse) *from Advanced Memory Systems*
This isn't a bad drawing tool, although there are limitations with mode and colour, and it is not ideal if you want to use drawings in your own programs as it doesn't use the whole of the screen.

Grafpad 2 *from Micro-Draw*
Expensive, and not always easy to control. Not suitable for left-handed users.

Rembrandt *from Beebugsoft*
One of the older utilities, without some of the sophistication of later offerings, but a sound, low-cost drawing tool.

Artwork *from Kuma*
An early production, adequate but limited in what it will do for you. But don't refuse if someone wants to give you their copy.

Screen Designer *from Amsoft*
The original basic drawing aid for the Amstrad CPC computers. Although it lacks advanced features such as block move and mirror, it is a nice program to use, and has the advantage of 8-direction plot and excellent magnification options.

Assorted light pens
No one has yet resolved the problems with drawing over dark areas, and as long as it is necessary to draw in light colours and change them later, these are not a good choice for beginners.

The Image System *from CRL*
Mode 0 only and not a very good drawing utility, but lots of fun if you've given up on filling your screen any other way. One simple drawing can be manipulated in various ways, re-coloured and reproduced time and again. Very addictive.

Parrotry Plus *from Treasure Island Software*
A totally different type of art utility with lots of potential for display work. Economical on memory, but not the best choice for straightforward drawing on-screen.

Cherry Paint *from Siren Software*
A Mac-Paint style utility for Mode 2 black and white drawings only. Easy to operate but limited in use.

Amstrad Artist *from CRL*
If someone wants to give you this one – refuse!

● *All the above programs were tested at the time of release, and it is possible that subsequent versions have been improved.*



TO ORDER PLEASE USE THE FORM ON PAGE 73

STAR WARS

A LONG, long time ago, in an amusement arcade far, far away, Atari launched an arcade machine. It is still the greatest film-tie in to be found in any arcade.

From Soho down to Brighton it still gets played, a real tribute to an ancient coin-op in these days of machine fashions and super hydraulics.

Several programmers have bought machines for their homes. Jeff "Llama man" Minter and Jez "Starglider" San, among them. So to produce a home computer version of the arcade classic is a daunting task.

Several companies tried to get the rights (better informed sources say that Activision fought very hard but lost). After being impressed by the award-winning Trivial Pursuit conversion, Atari approached Domark.

It was not the first attempt to convert Star Wars, the rights were sold to Parker in 1983. They wrote Spectrum and C64 versions (the Amstrad was still a twinkle in Alan Sugar's bank balance) but never released them. The public was lucky.

So Domark had the rights and took the project to Vektor Grafix in Leeds. They produced the eight bit versions with the emphasis on being faithful to the arcade machine.

The game is split into three parts. Space battle, planet surface and trench.

In space you take on the federation's Tie fighters from your X-wing. They shoot fireballs at you which you can either blast or dodge. The Tie fighters can be shot and explode spectacularly.

There is one indestructible enemy, Dath Vader's own craft. A hit causes it to spin and will stop the black baddie from shooting at you. Rumour has it that Dath Vader's ship can be destroyed with a number of hits. This is probably not true.

If your X-wing gets hit by a fireball you lose a shield. You start with eight of these, effectively giving you a cat-like limit of nine lives.

Control is limited. The joystick moves a floating crosshair which aims the gun. You appear to have control over the movements of the ship, but this is an illusion. On completion of the level you fly into the Deathstar.

If the game is played at the easiest level – selected at the beginning of the game – you fly straight to the third part. Such a plan is for wimps.

The planet's surface is covered with towers, some capped by a white block. You have to blast all the blocks for a bonus.

Gun emplacements fire fireballs – in the Amstrad version these emplacements are invisible, a necessary programming sacrifice. The fireballs are real enough. Once again they will deplete your shield count – as will a collision with a tower.

No time to leap out and exchange insurance details, there are more towers to be shot and a time limit in which to do it.

The best tactic here seems to be to fly in one direction, blast all the tower tops and then fly in another direction.

Even if you fail to shoot all the towers you get moved on to the next stage.

As you fly into the Deathstar your task is to plant a shot at the exhaust port, just as Luke Skywalker did in the film.

The trench you have to fly down is well protected. There are fireball launching emplacements – much like those on the second level, and catwalks which cannot be shot. Dodge 'em if you want to keep your shields. In fact it is better not to shoot at all.

By avoiding fireballs and not touching the trigger you can win a large bonus. This is know as "Using the Force". When the words – "Shoot exhaust port" appear you may unleash a bolt of fire.

Mission accomplished, the Deathstar explodes and you are awarded bonus points for any shields left and three extra shields. Then it is back to section 1 for another, tougher battle.





Author: Domark/Vektor Grafix
Price: £8.95 tape £12.95 disc

Nigel

There are a couple of Star Wars- like games around. The Realtime coded Star Strike and Rainbird's StarGlider spring to mind.

They are both more playable but Star Strike has dreadful Mode 0 graphics, and StarGlider is more ambitious with missions and less of a shoot-em-up.

The Domark game is amazingly faithful to the Atari original. Sometimes this has meant loosing the kind of nice touches we have come to expect from home computer games.

16/20

Liz

Vektor Grafix share a building with Realtime – and what a powerhouse of programming they have up there in Leeds. This is their first major project, the Amstrad version being substantially better than the Spectrum conversion, despite both being written with the PDS assembler and ported separately.

It is playable, but as an old game it is showing its age. More a nostalgia purchase.

12/20

Colin

This is the first of the Domark/Star Wars trilogy. The next title will be Return of the Jedi. This flopped in the arcades. It deserved to so I applaud Domark for their stated intent to beef it up a bit. Then we will see Empire Strikes Back, another vector game, with more to do and some Starglider type aliens. Of the three I suspect it will be Star Wars I come back to for another blast. May the Force be with you.

18/20

JET BIKE SIMULATOR

BRUCE Everiss, the wandering minstrel of the computer industry, is very proud of his new project for Code Masters. It is called Code Masters Plus and costs £4.99.

Bruce has been heard to comment that this is because the customer wants to pay more; it also leaves a bus sized hole in his argument that Code Masters' £1.99 games are just as good as everyone else's £9.99 games.

Unless you accept the unlikely theory that this new range is better than other people's £9.99 games.

If Jet Bike Simulator is not better than other games – some of Code Masters' excellent budget offerings included – what does it offer? There is a poster and badge (shades of World Cup Carnival perhaps?) and a second tape.

I don't understand why you need two tapes. Some compilations get six whole games on one tape and the Code Masters program would easily fit on to one long tape. I suppose it is to make you feel that you are getting better value for money.

The second tape contains extra circuits, a bit like US Gold's Deeper Dungeons for Gauntlet. The Oliver twins think it would be unethical to sell more tracks at a later date, and they dismiss the possibility of their launching a track-designing program.

If you have seen BMX Simulator or Grand Prix Simulator you will know the kind of game. The simulator name is a misnomer, instead of actually putting you in the driving seat an overhead view shows the aquatic combatants pitted in a race around various marinas.

The Jet Bikes look more like small boats, pointy at the front, flat at the back with a very effective wake. They are pretty, but far too small.

A better approach is that of Street Machine which used a bigger sprite (a car in its case) and scrolled the screen.

Jet Bike Simulator epitomises the strength of budget games. Often the simplest things are best. JBS is not very complicated but it is very playable.

Control of the jet bike is much more precise than that of the cars or bikes in BMX or Grand Prix. Things like jumps and sand banks mean you have to choose between a faster route around them or a slower but more direct route over them.

It is two and a half times better than other games of its ilk, and so justifies the higher price.

The Oliver twins' trademark of digitised speech is as effective as ever, and there are plenty of nifty touches – things like a replay mode and lap times. I hope they bring out a disc version.

Collision detection is good, you can only bump against human-controlled boats, making overtaking easier.

The thrust and rotate controls make the game exciting, experienced players learn when to ease up on the power.

Practice makes perfect. And it is a game which you will want to practice a good deal.





Authors: Oliver Twins/Code Masters
Price: £4.99 (tape only)

Nigel

NORMALLY I'd look at this and say I've already got three race-around-the-track games, I don't need a fourth. But this is so much better than the others that I'd be happy to shell out a fiver.

I think the proliferation of tracks and the expert level are going over the top a bit, but you don't have to use them if you don't want to.

16/20

Liz

SUPER sprint started it, the competitive multi-player game. It is a shame that the Activision licenced version was so poor. The Oliver twins claim that this uses none of the routines from Grand Prix Simulator. I doubt that this is 100 per cent true, but many things do seem to have been improved.

For a month's programming it is impressive and a tribute to the Maxam assembler the twins use.

17/20

Colin

JET Bike Simulator will be in the charts next month. You can be sure of it. I just hope that Code Masters are sensible enough to realise that a game has to be better to justify the higher price, not just split on to two tapes.

JBS is fun when you play by yourself, but really comes into its own when you play friends.

19/20

NOW FT BUSINESS REPORTS GO ON LINE

THE Financial Times Business Reports database is now part of Profile Information – the online service formerly known as Datasolve International – which is obtainable through MicroLink. It is the first venture between Profile and its new owner, The Financial Times, which recently acquired the company from Datasolve for £10 million.

Based on the highly-regarded FT newsletter service, the new database provides the full text of 22 regular newsletters covering technology, business, finance, media and energy.

Profile is best known to MicroLink subscribers for its World Reporter database containing the complete text of more than 25 worldwide newspapers, periodicals and news services.

As well as the world's leading business newspapers – the Financial Times and the Wall Street Journal – Profile also offers publications such as the Washington Post, the Guardian and the Daily and Sunday Telegraph.

Several major international news services such as Associated Press and Asahi are included, along with a wide range of authoritative sources on international politics, business, markets and finance.

Profile also offers access to McCarthy Online, which contains full text articles selected for their relevance to business and commerce from more than 60 of the world's top business publications.

It's the Tory line

TORY politicians and party workers all over the country are being urged to join MicroLink.

The Conservative Computer Forum, an organisation formed 10 years ago to promote computing among party members, is behind the campaign.

Committee member Warwick Childs said: "Perhaps the greatest potential a computer can offer – electronic communications – has up to now been sadly neglected in the Conservative Party. In this respect we are well behind the other main political parties.

"At present we have something approaching 200 CCF members – think what an advantage it would be if they were able to provide a nation-wide electronic mail network for the benefit of their constituencies.

"These people are our prime targets for linking together electronically. Eventually we hope to see all constituencies, MPs, party officials and offices on the MicroLink system".

Software speed-up

IT's now quicker and easier to use the massive MicroLink library of free computer software.

With the number of titles available for downloading fast approaching the 600 mark, subscribers were in danger of experiencing difficulty locating specific programs. As a result MicroLink has completely redesigned the telesoftware database to speed up the process of selection.

Users can now choose from a menu a complete database of program titles suitable for their own particular make of computer.

The social side wins

MICROLINK subscriber Nigel Inwood temporarily abandoned a career in accountancy and law to help his parents open a business. Fourteen years later he very much doubts he'll ever return to the office.

The business his family took over was Judges Bakery, in the High Street of Hastings old town near the harbour.

With the addition of a restaurant, it became the only bakery to be listed in tourist guides such as Egon Ronay and the Good Food Directory.

"I'm on MicroLink for pleasure, because computing is my hobby", said Nigel Inwood. "Despite its international fame this is still a one-shop business – my Email communications are more likely to be social than official.

"I chose MicroLink because it offered more interesting and entertaining features than the other systems available".

Third World connection

A LEADING independent authority on conditions in Third World countries has joined MicroLink to improve its international communications.

The Overseas Development Institute was formed nearly 30 years ago to study and monitor economic and agricultural development abroad.

At any one time it has as many as 20 research projects underway in different parts of the world. As well as publishing vital information about conditions in various countries, the ODI also tries to influence the decisions of policy makers around the world.

"We have an ongoing need to communicate with researchers and other institutions worldwide", said ODI spokesman Peter Gee.

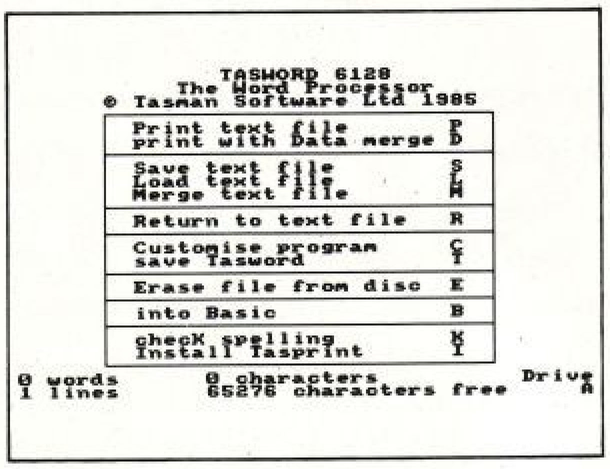
"As part of a project to improve communications we are looking at electronic messaging, and MicroLink is as good a base as any to start with its excellent Email and telex facilities".

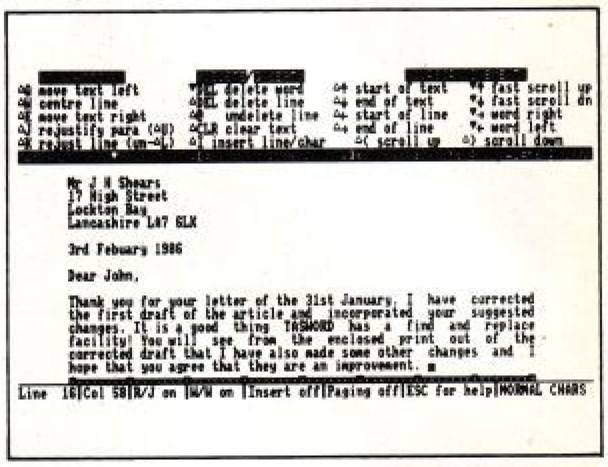
YOUR chance to join MicroLink – Page 26

TASWORD 6128

THE WORD PROCESSOR FOR THE AMSTRAD CPC 6128







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The program uses ALL the additional 64K of memory in the CPC 6128 as text space. This means that text files can be around ten thousand words long.
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With all standard and many extra word processing facilities TASWORD 6128 is the most powerful of the TASWORDS, for the Amstrad CPC computers.

TASWORD 464-D
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TAS-SPELL
THE SPELLING CHECKER

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TASPRINT 464 cassette £9.90 disc £12.90

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POPULAR COMPUTING WEEKLY, NOVEMBER 1984

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TASCOPY 464
THE SCREEN COPIER

TASCOPY 464 cassette £9.90 disc £12.90

A suite of fast machine code screen copy software for the CPC 464, 664 and 6128. Print high-resolution screen copies in black and white and also large 'shaded' copies with different dot densities for the various screen colours. TASCOPY 464 also produces 'poster size' screen copies printed onto two or four sheets which can be cut and joined to make the poster.

TASPRINT 464 and TASCOPY 464 drive the following dot-matrix printers:

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EPSON MX-80 TYPE III	NEC PC-8023B-N	DATAC PANTHER II	

DAN DARE II

YOU'LL remember that in Dan Dare you destroyed the evil Mekon's hollowed-out asteroid, the one he intended to crash into the Earth (or was it that the Earth was about to crash into it, I'm sure it was nothing to do with a Star-Goat).

The emerald enemy has retreated to a BBB (Bigger Better Battleship), where, stealing a plot from Dr Who's Genesis of the Daleks, he has conducted the kind of genetic tampering unknown to anyone as human as Grant Coren.

The result is the Supertreen. If they get out, to be launched on the small blue-green planet we know as Earth, it will be bye-bye civilisation.

Your mission is to fly around the Mekon's mobile mansion and destroy the fledgling Supertreens while they are still developing inside the see-through plexiglass capsules – a womb with a view.

The capsules are located on four levels, as show on the map on the following page. Oh, by the way we should thank Alexander Martin, ex-ACU staffer and now at Virgin, for the original map from which Justin and John put together the detailed map you see here.

You float around on a Strangeloopesque scooter and have to shoot at the capsules. When you kill the first Supertreen a counter starts. It varies in speed from level to level (time is an illusion, lunchtime doubly so), in a way which would flumox Einstein.

You need to kill all the other Supertreens on the level and make your way to the explosion-proof exit before the level self-destructs. On the fourth level you leave in an escape pod.



There are force fields to destroy and a few goodies to pick up. The best of these tops up your energy. As in Dan Dare I, you can pick up a treen disguise kit. This stops the treens from shooting at you. It does not disappear if you die.

You get six lives, each with a limited amount of energy, and an extra life for every 50,000 points scored.

Your reincarnation takes place at the same place on each level – which is a pain if you have fought your way near to the end of the level.

The game has a special twist. If you are in an evil mood you can rescue the Supertreens by playing the Mekon. He has been alerted by Dan's arrival, and taking on his role you fly in a similar manner to Dan, shooting the canisters to release your precious aides.

The ship's self-destruct is on, so you'll have to move quickly. It is harder to play as the Mekon, so this is best left for a later challenge.

Author: Gang of Five/Virgin Games
Price: £7.95 (tape) £14.95 (disc)



Nigel

DAN Dare was an excellent game. It's not surprising that this is just as fabbo. The graphics by the aforementioned Alex Martin are pretty and detailed, the backgrounds being particularly effective.

The starting sequence, showing your character dropping into a pipe, is cute. I found controlling the spaceship frustrating at times but still wanted to play more.

17/20

Colin

UNLIKE so many character tie-ins, this genuinely reflects the Dan Dare wizzo charm. The Mekon on his flying chair, Dan in his space suit.

Virgin has always produced good Mode 0 games. Some of the Supertreens are hidden in devilishly difficult to get at places. The first level seems easy by comparison. The learning curve has been well judged.

16/20

Liz

I'M too young to remember Dan Dare – Pilot of the Future, in the Eagle and now I regret that. Looking back at a 1957 copy is funny, but you can understand the reason why a cult following grew up around the character.

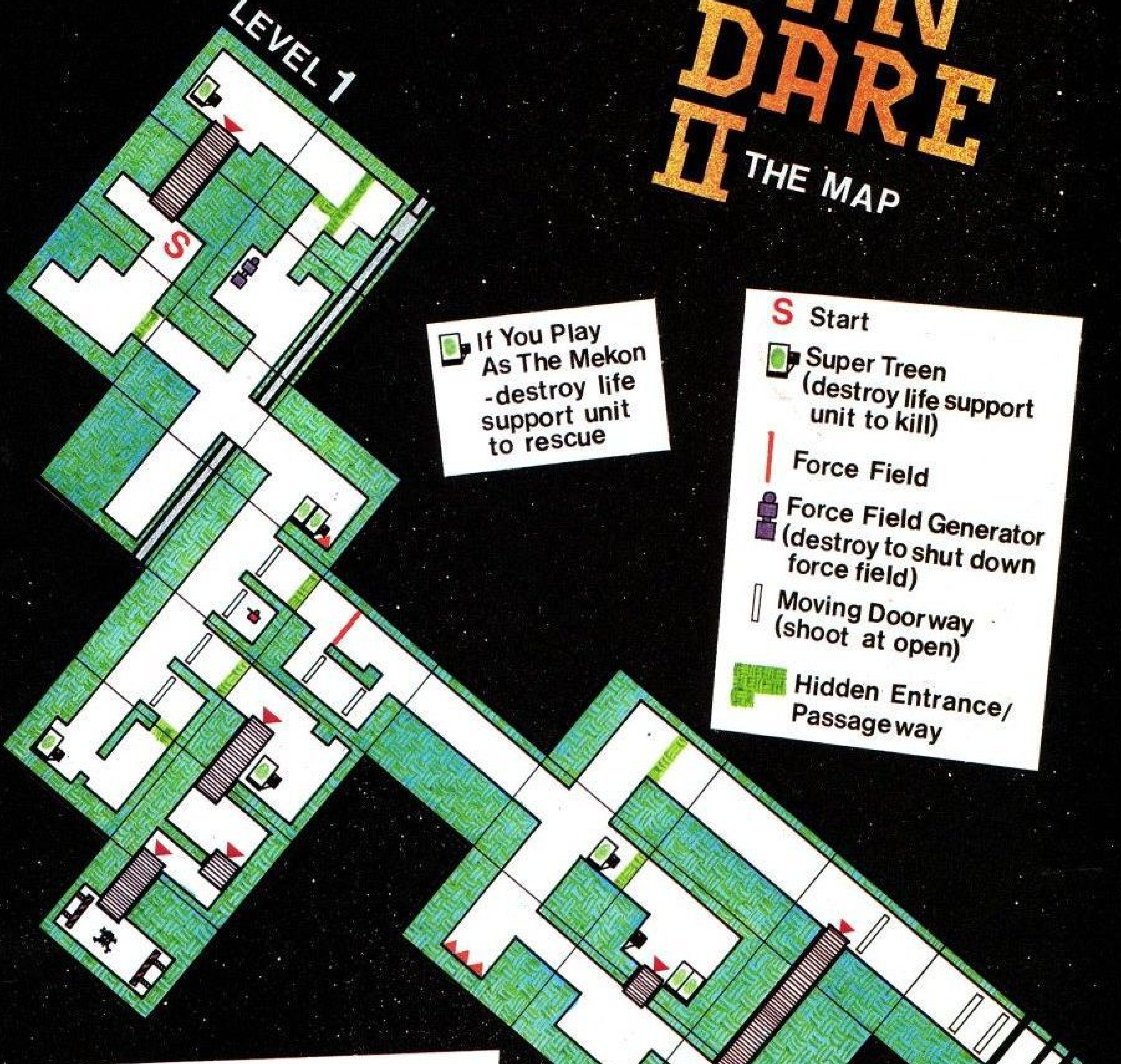
Remember, Dan Dare was created before man had been into space. I'd love to know what the authors of the strip would have said if you told them that he was going to star in a computer game. I expect they'd have been chuffed.

If they knew how good a game they'd have been right.

19/20

DAN DARE II

THE MAP

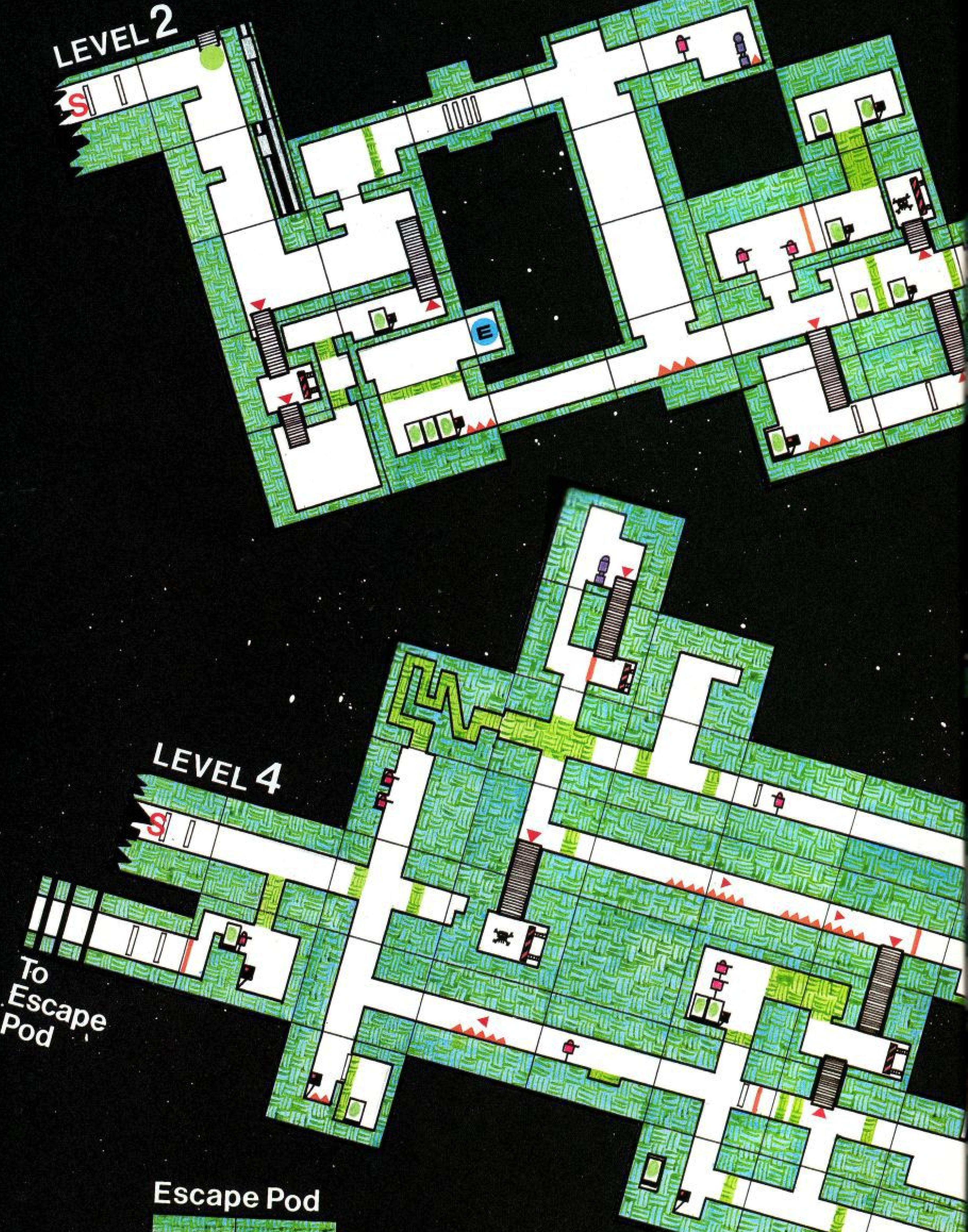


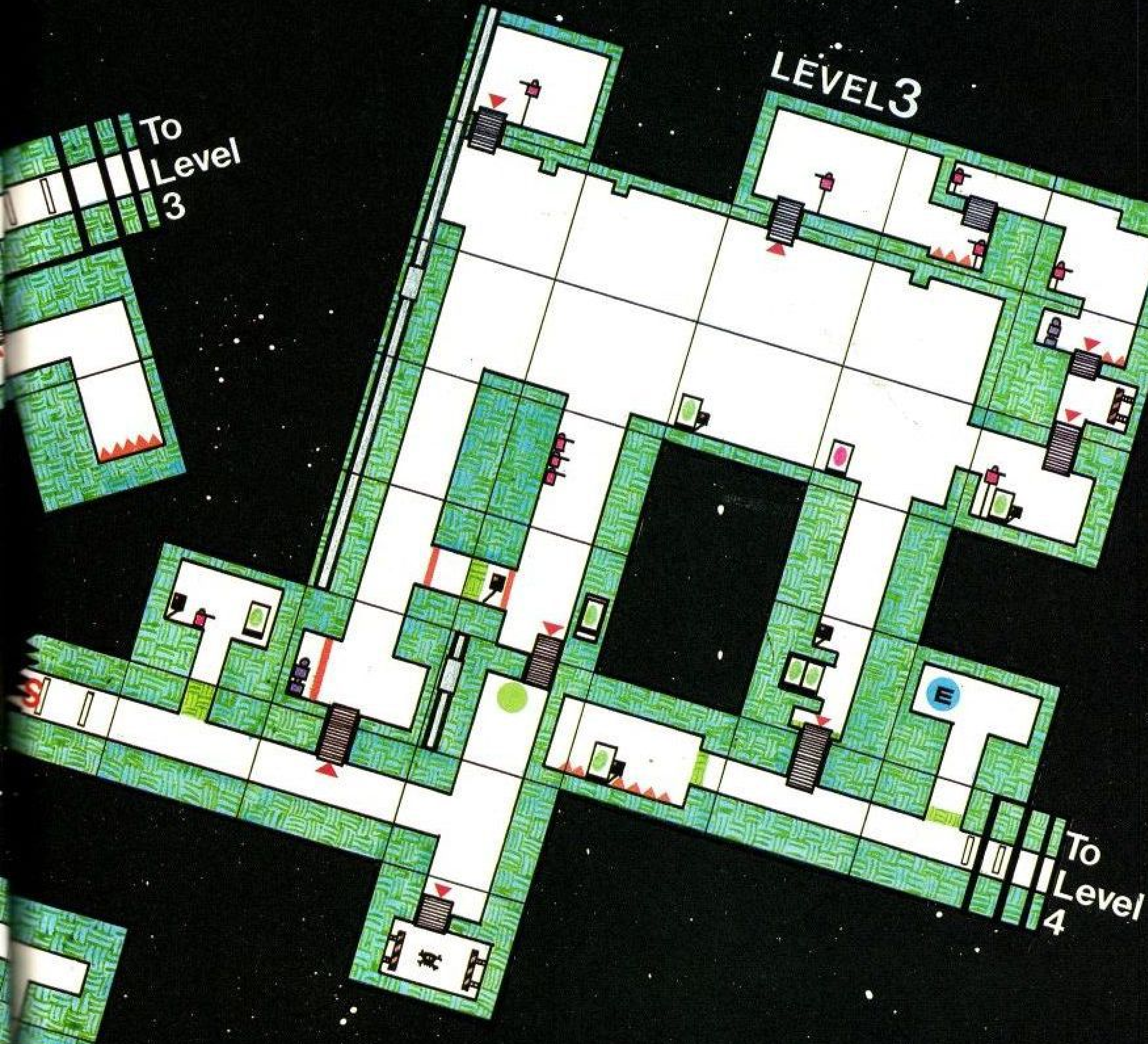
If You Play As The Mekon -destroy life support unit to rescue

- S Start
- Super Treen (destroy life support unit to kill)
- Force Field
- Force Field Generator (destroy to shut down force field)
- Moving Doorway (shoot at open)
- Hidden Entrance/ Passageway

- Re-entry Point After Death
- Thruster Pads
- Laser
- Crusher
- Certain Death!
- Treen Disguise Kit
- Energy Cell (pick up)
- One Way

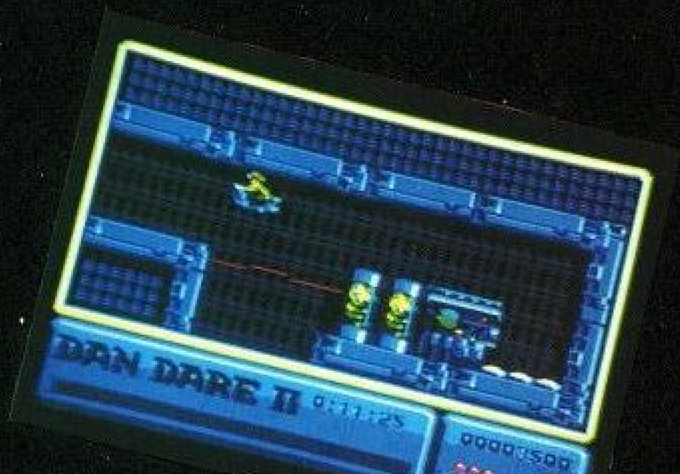
Transference to next level is automatic


LEVEL 2
S
E
LEVEL 4
S
To Escape Pod
Escape Pod









Mapping J Garvanovic

Artwork J Alexander

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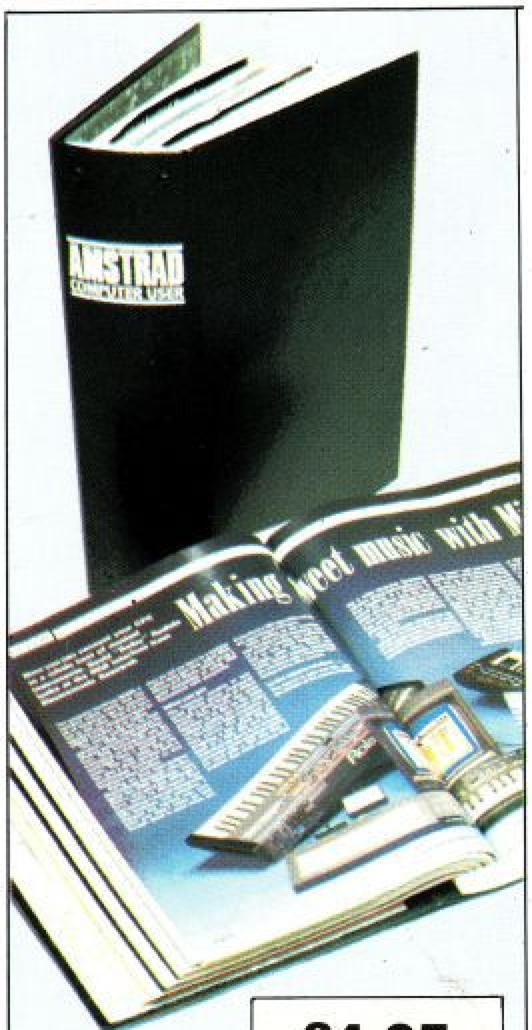
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AMSTRAD
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Bundle 1: January 1986 to June 1986.
This contains a map of The Devil's Crown, pokes for Sorcery Plus, how to use the CPC's fourth mode and a shaded dump for DMP 2000 printers. Software reviews include: Brainstorm, the ideas processor; GAC, the adventure system; Laser Basic, the games writing aid and Rainbird's Music System. Among the hardware reviewed in this bundle is dk'Tronic's ram add-on, various serial interfaces, joysticks and a Teletext adapter. Gamesters will value the maps of Herbert's Dummy Run, Batman and Get Dexter. Programmers will learn from a collection of articles, including advice on music and the 6845 VDP.

Bundle 2: July 1986 to December 1986.
Articles include an exhaustive review of assemblers and art packages, the first full review of the PC1512, plus reviews of joysticks, printers and the Electro-Music Research Midi interface. Those readers who often find themselves clutching a sweaty joystick will appreciate the articles on flight and fight games, the Equinox map and the hints on Spindizzy. Programmers can type in programs like ZX Loader, Battle of the Cars, Interceptor and Double Trouble. And if you want to know who does what then there are interviews with Palace, Activision, Mastertronic and the sadly demised Mikro Gen. A bundle of fun.



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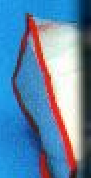
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March: Nemesis preview, Music Machine – the ultimate Sound peripheral. Making the most of Protext, Machine Code manipulation, Elite Disc hack, background print spooler and US Gold interview.
April: Computer Journey – what makes your Arnold tick, the Men from Microprose, Amstrad RS232 reviewed, Sentinel from Firebird, back-up reminder program.
May: Ambug – Build it yourself robot, Empire review, Art Studio from Rainbird. Plumber-droid Lizting, Plan It, the house finance organiser.
June: Ranarama from Hewson, smooth screen scrolling, Head over heels mega map, Maxam II, Motor racing games, Citizen MSP printer, Machine code triangles.
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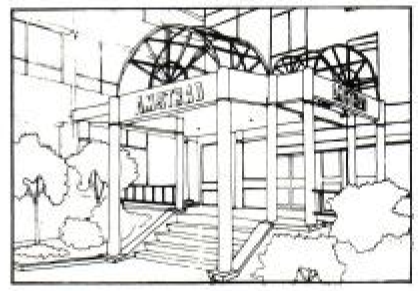
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But only one program has a non-defamation clause. I'd usually have thought it a little pointless for a company to insist that its customer does not slag off a product which it in turn is selling. That is until you find out what it is. I'm not going to risk telling you, just that it rhymes with roadster.

RTFM. It's a phrase you come across in the less polite sectors of the computer community. Some say it stands for Read The Firmware Manual, some for Read the Flippin' Manual, and some say it stands for something similar. Now there is a sequel to RTFM: TSM YO-YO, pronounced Tee Ess Em Yo-Yo. It stands for something along the lines of Tough Stuff Mate You're On Your Own, and is particularly applicable to systems sold without support.

Amstrad puts on a brave new front

ANYONE who has been to Amstrad will know that the building is pretty tatty. Well, this is going to change. The reception is being extended and smartened up. It'll mean that David Radisic and Steve Rayment lose their parking places, but, as the picture shows, the place will look a lot better for it. It's a shame Amstrad couldn't afford an awning to go over the wire frame.



Hoist by their own petard

THE newest Amstrad Spectrum is the +3: Amstrad would want to call the successor a +4, but can't – Commodore has used that name. Still, Amstrad itself is partly to blame for this. It called the Arnold we know, and presumably love, the 464. Commodore would have called their machine the 164, 264 or 364 – depending on configuration. That was until the 464 was announced, with a bit of marketing back-peddling the 264 became the +4, and the other machines were dropped. Small world isn't it?

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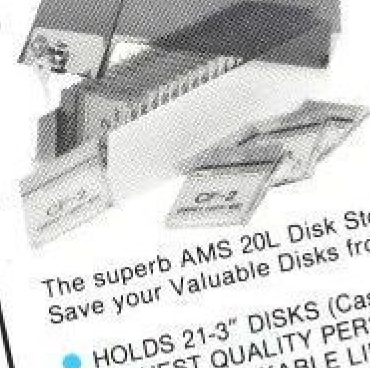
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